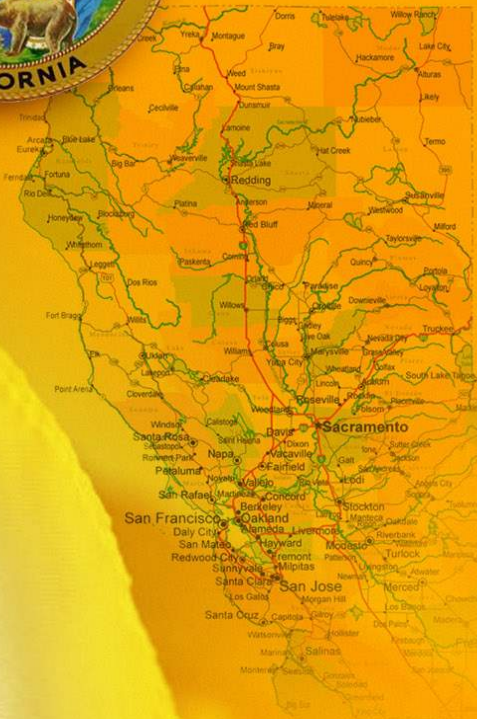


# Regional Planning Committee 6 Plan for 700MHz





June 16, 2009

Federal Communications Commission  
Office of the Secretary  
445 12th Street, SW  
Washington, DC 20554

Attention: Chief, Public Safety and Homeland Security Bureau  
Subject: WTB Docket No. 02-378, Region 6 - 700 MHz Regional Plan

Dear Madam Secretary:

On behalf of Regional Planning Committee Six ("Region 6"), I am pleased to submit the Plan<sup>1</sup> for the use of the 700 MHz public safety narrowband voice frequencies pursuant to the rules of Federal Communications Commission. The Region 6 Plan has been developed in conformance with the Second Report and Order<sup>2</sup> as well as the related and applicable Orders of the Commission.<sup>3</sup>

Region 6 believes that this Plan sufficiently addresses each of the common elements required under the Commission's rules<sup>4</sup>. In the compilation of the Plan, Region 6 provided notice of all meetings, opportunities for comment, and how we reasonably considered the views expressed by participants. The Plan was coordinated with each of the adjoining Regional Planning Committees<sup>5</sup>. This Plan is representative of all public safety entities in Region 6 and the details of the Region's activities to meet the requirements of the Commission<sup>6</sup> relative to Plan development are offered within the body of this document.

The Region requests the Commission's approval of this Plan as so licenses for critically needed land mobile radio systems in the 769-775 and 799-805 MHz bands supporting homeland security and public safety can be considered by the Commission.

Respectfully submitted,

Randall Hagar  
Chairman  
Regional Planning Committee 6  
700MHz / 4.9GHz



<sup>1</sup> See 47 CFR §90.527(a)(1)

<sup>2</sup> See FCC 07-132

<sup>3</sup> See DA 07-4587 Appendix Bullet Point One, Page 3

<sup>4</sup> See 47 CFR §90.527(a)

<sup>5</sup> See 47 CFR §90.527(a)(5)

<sup>6</sup> See 47 CFR §90.527(a)(6)

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## **1. Regional Committee Organization**

The first Organizational Meeting preceding the establishment of the Region 6 - 700 MHz Regional Planning Committee (RPC) was held on January 28, 1999. Mr. Don Root convened the meeting. At this meeting, it was acknowledged the National Coordination Committee (NCC) and the Federal Communications Commission (FCC) had much ground to cover with respect to advancing the guidelines for 700 MHz public safety/public service spectrum use.

At the first Region 6 – 700 MHz Regional Planning Committee meeting on May 16, 2002, William De Camp was elected Region Chair. At the ninth Region 6 – 700 MHz meeting on May 29, 2007 Randall Hagar was elected Region Chair and George Lowry was elected Vice Chair.

The following officers were elected in subsequent Region 6 – 700 MHz Regional Planning Committee meetings:

### **Chairperson**

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General Services Agency  
Communications Department  
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### **Primary Frequency Advisor**

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### **Secretary / Treasurer**

David Cruise  
Communications Systems Project Manager  
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### **Vice Chairperson**

George Lowry  
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### **Alternate Frequency Advisor**

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Network and Telecommunications Division  
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Phone (916) 808-7327 / Fax: (916) 808-7970  
Email: [sandrews@cityofsacramento.org](mailto:sandrews@cityofsacramento.org)

## **2. RPC Membership**

**Attachment D** contains the membership list for Region 6. Membership is and has been open to any eligible person or interested party since the convening of Region 6. Voting and operating procedures are described in Section 5 of this plan.

## **3. Region Description**

For the purposes of managing the National Public Safety Planning and Advisory Committee (NPSPAC) 800 MHz, 700 MHz general use<sup>1</sup>, and 4.9 GHz channel planning, the FCC recognizes 55 individual Regional Planning Committees or “Regions” as shown in Figure 3.1. The Northern California Region (Region 6) comprises the 48 counties of California situated north of the northernmost borders of San Luis Obispo, Kern and San Bernardino counties. For Region 6 and surrounding Regions 5, 27, , please refer to Figures 3.1 through 3.5 below. Because of Arizona’s close proximity to Region 6 (≈50 miles), it is also included below as Figure 3.6.

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<sup>1</sup> See 47 CFR §90.531(b)(6)

## The Public Safety 700MHz Planning Regions

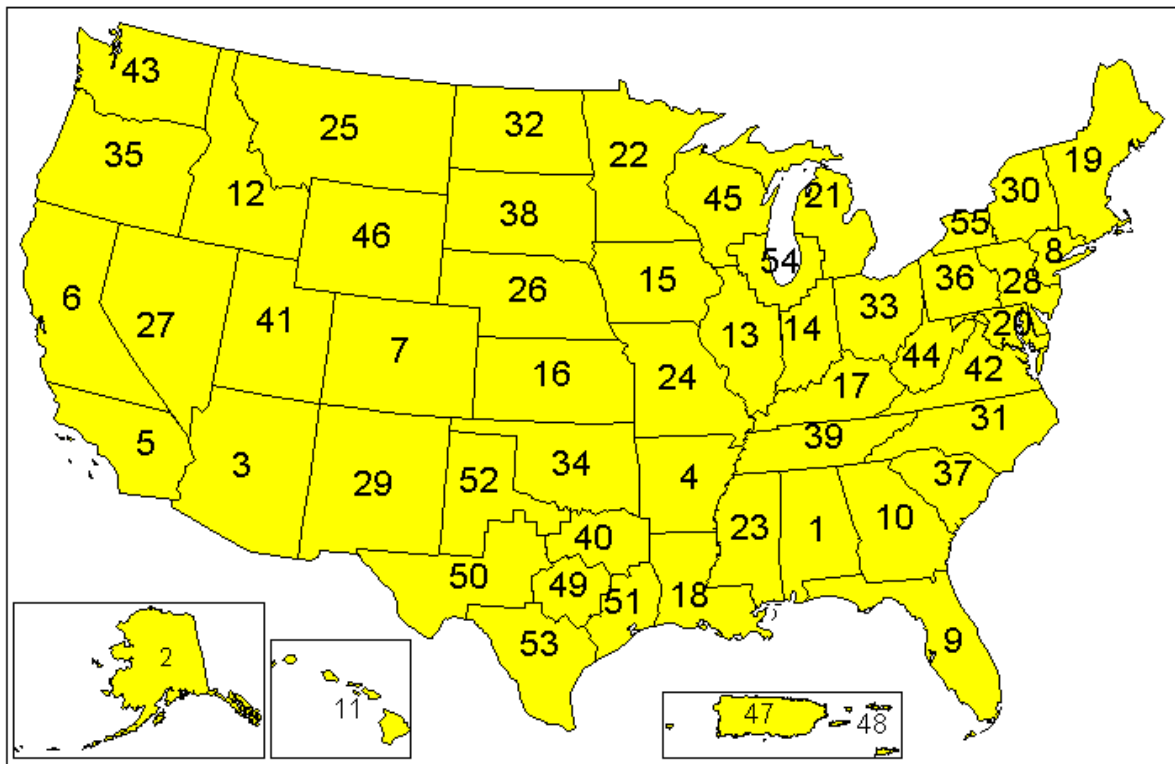


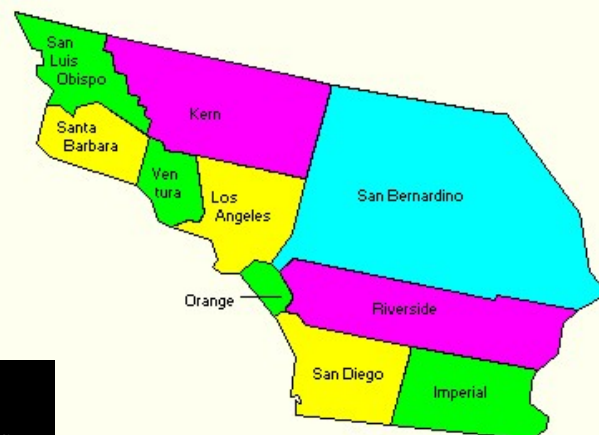
Figure 3.1: Public Safety 700 MHz Planning Regions

## Region 6: Northern California



**Figure 3.2**  
Region 6 Counties

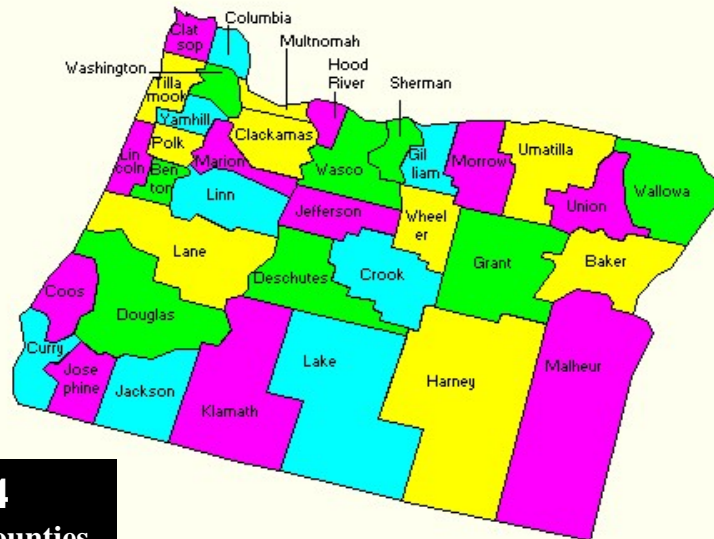
## Region 5: Southern California



**Figure 3.3**  
Region 5 Counties

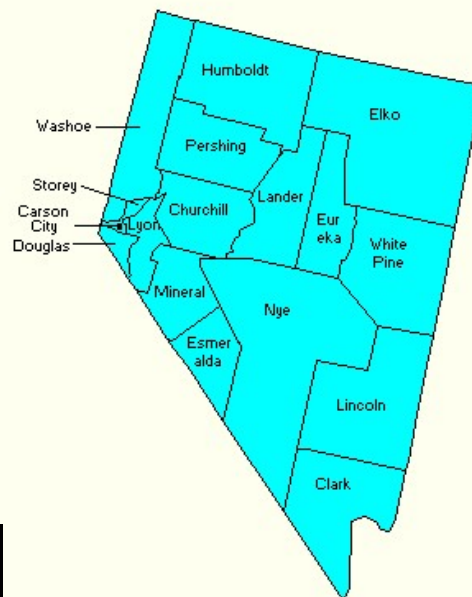
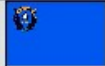


## Region 35: Oregon

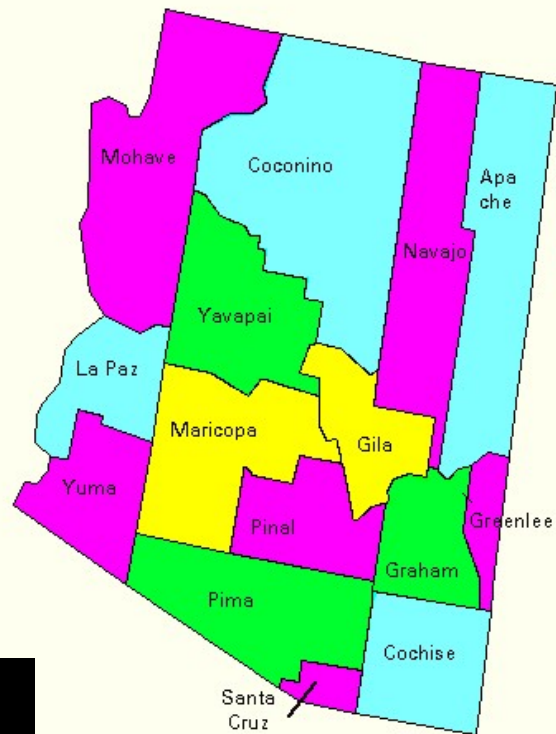


**Figure 3.4**  
**Region 35 Counties**

## Region 27: Nevada



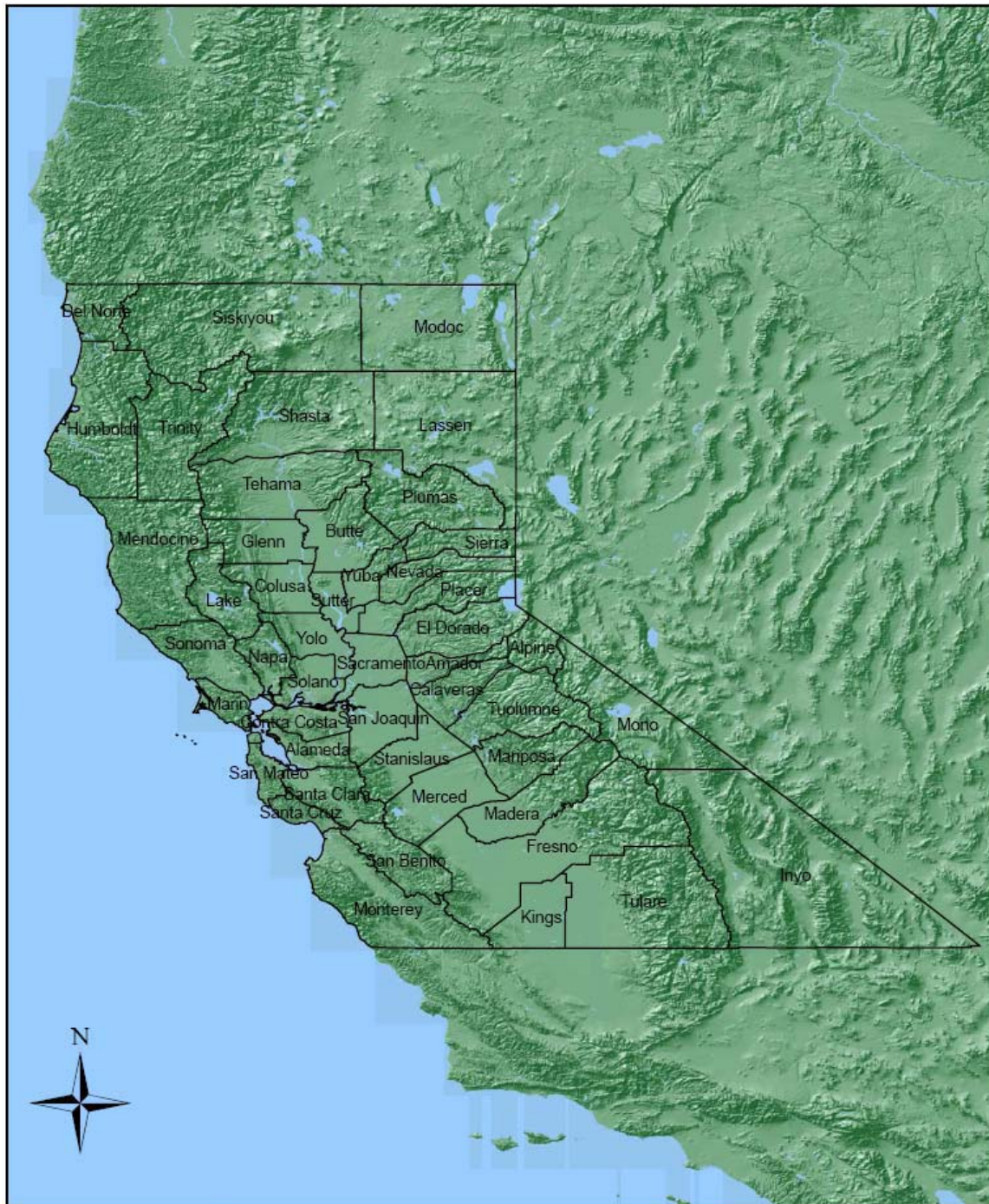
**Figure 3.5**  
**Region 27 Counties**



**Figure 3.6**  
Region 3 Counties

The Northern California terrain is varied and rugged. Elevations range from sea level to over 14,000 feet (see Figure 3.7 below).

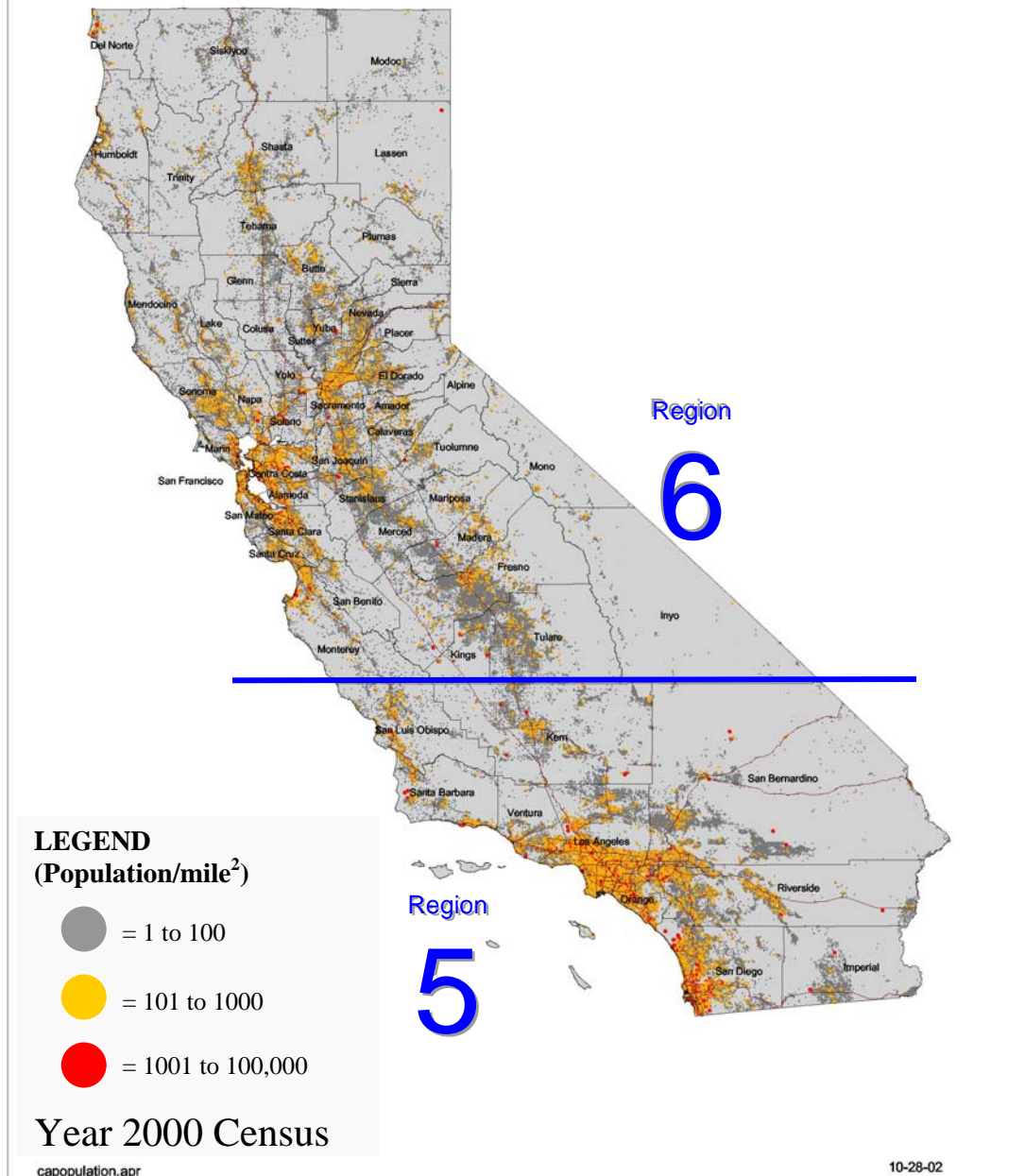
**Figure 3.7: Region 6 Counties and Terrain (courtesy of Bearing Point)**





The majority of Northern California's population is distributed along California's west coast in proximity to Highway 101 and along a north-south line bisecting the center of California which coincides with Highway 99 South of Sacramento, and Interstate 5 North of Sacramento. Heavy concentrations exist in California's Bay, Silicon Valley, and Central Valley areas. Other areas of Northern California have small concentrated areas of population with vast areas of mountains and some deserts with very sparse population (see Figure 3.8 below).

**Figure 3.8: Distribution of Population in California Counties**



Of California's population of  $\approx 34$  million, about 13 million reside within the boundaries of Region 6, and about 21 million within Region 5. Twelve of the forty-eight Region 6 counties contain  $\approx 75\%$  of its population (see Figure 3.8 on the previous page and Table 3.9 below).

**Table 3.9: Twelve Counties in Region 6 Comprising  $\approx 75\%$  of the Population**

<b>County</b>	<b>% of Region 6 Population</b> <i>(derived from year 2000 census data)</i>
Santa Clara	12.7
Alameda	10.9
Sacramento	9.2
Contra Costa	7.2
Fresno	6.0
San Francisco	5.9
San Mateo	5.3
San Joaquin	4.3
Sonoma	3.5
Stanislaus	3.4
Monterey	3.0
Solano	3.0
<b>Total :</b>	<b>74.4</b>



The requests for narrowband voice spectrum in Region 6 are *anticipated* to be as follows:

- State of California Government
  - to support a new statewide system integrating multiple state agencies on a common system(s)
  - to accommodate local and federal agencies that wish to participate on the Statewide system or systems
  - to accommodate Emergency Medical Services Authority (EMSA), and the EMS providers they represent, in EMSA's requests for spectrum for new emergency medical systems
  - to accommodate University of California systems development and/or expansion
  - to accommodate California State University systems development and/or expansion
- Region 6 Counties
  - to support the development and/or expansion of Regional/Countywide system(s) which integrate multiple County agencies on a common system or systems
  - to accommodate State, City, and/or Federal agencies that wish to participate on the Regional/Countywide system(s)
- Region 6 Cities
  - to support the development and/or expansion of citywide system(s) which integrate multiple City agencies on a common system or systems
  - to accommodate State, County, and/or Federal agencies that wish to participate on the Citywide system(s)
- Other Eligible Public Safety/Public Service Entities

## 4. Notification Process

The First Regional Plan Meeting was held on May 16<sup>th</sup>, 2002. The FCC issued a Public Notice of the meeting. The meeting was advertised in the NAPCO (the local APCO chapter) News Letter. The NAPCO “Northern Californian” is sent monthly to nearly all Region 6 public safety agencies and is considered the primary notification method. The convener, Don Root, also contacted several agencies via email that expressed interest in the planning process. A second meeting was held on October 3<sup>rd</sup>, 2002, a third meeting on April 14<sup>th</sup>, 2003, and a fourth meeting on October 29<sup>th</sup>, 2003. Subsequent Meetings 5 through 11 were held, each one publicly noticed and or Region 6 700 MHz RPC members<sup>2</sup> were notified via email. In each case, the FCC issued an advance Public Notice for these meetings, and the meetings were again advertised in turn in the NAPCO “Northern Californian”. In addition, towards the end of 2002, a Region 6 website was created at [www.rgn6rpc.org](http://www.rgn6rpc.org), and each meeting notice was also posted at this new, neutral location. As the primary purpose of the planning effort is to allocate spectrum to public safety agencies needing additional spectrum, the Committee made special efforts to allow agencies to come forward and demonstrate a need for additional spectrum. That is, a spectrum survey form was developed, advertised, and posted on the above web site.

## 5 Regional Plan Administration

### 5.1 Operations of the Regional Planning Committee

This Committee will use the latest version of Robert’s Rules of Order to conduct meetings. All decisions will be by clear consensus vote with each Public Safety Agency<sup>3</sup> having one vote. The meetings are open to all persons as required by the Commission’s rules<sup>4</sup> and a public input time is given for anyone to express a viewpoint or to have input to the planning. Workgroups may be formed as needed to work on specific issues.

For the initial planning three workgroups were formed – Plan writing group, spectrum planning group, and operations group. Workgroups are intended to work on details of specific issues and make recommendations to the full committee. Any changes to the Regional plan must be voted on and approved by the full Regional Planning Committee. Workgroups are open to any eligible persons who want to participate. The Chair of the Regional Planning Committee appoints the Chair for each workgroup or subcommittee.

A minimum of one meeting per year will be held of the full committee. This will be announced and advertised at least 30 days in advance by the Committee Chair. The normal time for this meeting, if only held once a year, will be in the first quarter of each year. Beginning two years after Federal Communications Commission approval of this

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<sup>2</sup> Attachment D is a representative membership list for the Region 6 700 MHz RPC

<sup>3</sup> A Public Safety Agency is defined as a City, a County, a State Agency, or a Special District with jurisdiction over protecting life and property as defined in Title 47 CFR §90.15

<sup>4</sup> See 47 CFR §90.527(a)(8)

Regional Plan, the Chair shall call a meeting of the Committee to elect Officers of the Regional Planning Committee as follows: a Chair, Vice Chair, Primary Frequency Advisor, Alternate Frequency Advisor, Treasurer, and Secretary to serve for two years.

There is no limit to the number of terms that may be served. If the Chair is unable to serve a complete term, the Vice Chair will serve as Chair until the next election meeting. If both the Chair and Vice Chair are unable to serve their full terms, one or the other shall strive to call a special meeting of the Committee to elect replacements. If for some reason, neither the Chair nor the Vice Chair can call the special meeting, the State or any County within the region may call for a special meeting, giving at least 60 days notice, to elect replacements. The Chair may appoint one of the Officers to assume the duties of the Secretary and or the Treasurer if the position is not filled in the normal manner (by election).

## 5.2 Procedure for Requesting Spectrum Allocations

The history and process used for validating initial requests for spectrum is outlined in Section 4. After plan approval, agencies desiring a spectrum allocation shall submit a written request signed by someone having budget authority to the Region 6 Chair indicating their need for spectrum. The requests will be considered, providing that harmful interference is not caused to existing users. The technical parameters to determine the extent of any possible interference are given in Section 7 of this Plan. Agencies will need to provide the Committee with a full justification for the additional spectrum. All requests will be considered on a first-come, first-served basis. In the event that contending requests are received in the same time frame, Section 8.5 will be used to determine priority for allocation of spectrum. For approval, the Chair will distribute the request to all other agencies with allocations in the plan for review. An agency may protest approval within 30 calendar days. Protests will only be considered if an agency or the Chair can show harmful interference is likely based on the input submitted by the agency requesting the new allocation or the allocation does not conform to plan criteria. If the parties cannot resolve the issues and so inform the Chair within 14 calendar days, then a full Committee meeting will be scheduled to consider and vote on the protest.

## 5.3 Procedure for Frequency Coordination

Before applicants submit an application to one of the FCC recognized frequency coordinators, the application must be reviewed at a Frequency Advisory Subcommittee meeting of the Regional Planning Committee, Region 6, 700 MHz. The Subcommittee will review the application to ensure it complies with all elements of the Regional Plan. This will NOT be a review to ensure the application form meets FCC requirements for filing. The applicants must submit a copy of the FCC application and supporting documents to the Regional Planning Chair and Vice Chair.

The data presented to the Frequency Advisory Subcommittee shall be complete and identify all technical parameters as required in the form FCC 601 for their proposed system. Additionally the applicant will furnish, for the committee's evaluation, the R-

6602 contours describing the proposed system's 40 dBu (service), 60 dBu (adjacent channel) and 5 dBu (co-channel) contours. Applicants must demonstrate that the proposed service contour encompasses the legal boundaries of the applicant's jurisdiction plus an area extending three (3) miles beyond its borders. If the applicant wishes to submit justification for a larger service area, that justification should also be furnished.

The Subcommittee will validate the channel allocations for the applicant in the CAPRAD database and will perform, if appropriate, an interference evaluation using EIA/TSB-88 (most current release). Should the applicant's technical data indicate failure of the TSB-88 evaluation; the Subcommittee will work with the applicant to adjust the technical parameters to obtain compliance.

The technical data submitted to the committee will be considered binding. Should interference be caused to a future co-channel or adjacent channel user, the applicant and subsequent licensee, pledges to work towards mitigation of the interference to the satisfaction of the Subcommittee. Agencies must be prepared to conduct these field tests if a request is made. Requests for more than six channels must use trunking technology.

Applications will include:

1. Current FCC application form (currently the 601)
2. a short description of the proposed system including an area of operation map and functional block diagram of the proposed system
3. justification of the requested spectrum
4. Documented proof of funding, signed by a person with budgetary authority, for the acquisition and installation of all transmitters identified on the application.
5. Existing frequency allocations in all bands
6. channel loading of proposed system and use – applicants may provide metrics (airtime traffic, channels in use, “busies”, etc.) pertinent to existing systems where applicable, or they may model anticipated metrics in order to establish the minimum quantity of channels required. The analysis methods used must be industry-accepted as determined by the Frequency Advisory Subcommittee of RPC6. Reasonable quantities of channels required for future growth may be acceptable. Applications shall address the following characteristics: holding times, Grade-Of-Service, typical busy period(s), quantity of talk groups, telephone interconnect calls, the temporary use of talk groups created merely to link two individuals, and the impact of the system caused by subscribers that roam across sites, cells or zones. Requests for six or more channels must use trunking.

All agencies must meet the coverage criteria of Section 7. The frequency advisory meetings will be held as needed to review applications, but normally concurrent with the Northern California APCO (NAPCO) monthly meeting. After the regular NAPCO meeting, the Region 6 – 700 MHz Regional Planning Committee, Frequency Advisory Subcommittee meeting may be convened. The NAPCO meetings are normally attended by many of the public safety agencies in Northern California. Notifications of frequency advisory meetings will be placed in the NAPCO Northern Californian and will be available to non-members at the NAPCO Internet site ([www.napco.org](http://www.napco.org)) as well as at the

Region 6 Internet site ([www.rgn6rpc.org](http://www.rgn6rpc.org)). Membership in NAPCO is not required to participate in these frequency coordination meetings, and the co-location of meetings is solely for the convenience of the Regional Planning Members.

#### 5.4 Adjacent Region Spectrum Allocation

Region 6 shares borders with Oregon, Nevada, and Southern California, and is within 60 miles of Arizona. Region 6 has a small population density along the Nevada and Oregon borders. Region 6 will coordinate channel allocations with all bordering regions and the State of California for those channels established by planning as for statewide use.

Region 6 will provide data to the CAPRAD ( Computer Assisted Pre-Coordination Resource And Database system)

#### 5.5 Dispute Resolution

In the event an agency disputes the implementation of this plan after FCC approval, the agency must notify the Chair of the dispute in writing. This section does not apply to protests over new spectrum allotments (see Section 5.2). The Chair will attempt to resolve the dispute on an informal basis. If a party to the dispute employs the Chair, then the Vice Chair will attempt resolution (note that this assumes the Chair and Vice Chair are not from the same organization). In such cases, the Chair shall be deemed to have a conflict of interest and will be precluded from voting on such matters. If after 30 days the dispute is not resolved, the Chair (or Vice Chair) will appoint an ad-hoc Dispute Resolution Committee. The committee shall be comprised of members selected from representatives of the counties and cities in the region, with one representative from a State agency acting as the tie-breaking vote on an as-needed basis. No member selected may be from an agency involved in the dispute. That committee will select a Chair to head the committee. The Regional Plan Chair (or Vice Chair) will represent the Region in presentations to the Dispute Resolution Committee. The Committee will hear input from the disputing agency, any affected agencies and the Region Chair. The Committee will then meet in executive session to prepare a recommendation to resolve the dispute. Should this recommendation not be acceptable to the disputing agency or agencies, the dispute and all written documentation will be forwarded to the Federal Communications Commission for final resolution.

### **6. Interoperability Channels**

Region 6 defers to the California State Interoperability Executive Committee (CalSIEC) for all radio interoperability plans relative to 700MHz and will participate in the CalSIEC planning process through the formal participation of the RPC Chair and Vice Chair on the SIEC itself.

#### 6.1 Introduction



The ability for agencies to effectively respond to mutual aid requests directly depends on their ability to communicate with each other. Northern California is subject to many natural disasters and mutual aid is common among agencies. This Plan seeks to facilitate the communications necessary for effective mutual aid.

The State of California will administer the interoperability channels via a State Interoperability Executive Committee (SIEC) under National Coordination Committee's (NCC) guidelines. As the State is divided into two regions, this will facilitate common operating procedures for both North and South. If the State is unable to form the SIEC and develop interoperability operating procedures, then this committee will do so. This Plan also gives the following guidance to the SIEC to take into account the needs of Northern California.

## 6.2 Tactical Channels

Because of the extensive mutual aid operations that can involve several mutual aid operations simultaneously, all mobile and portable units operating under this Plan should have the interoperability channels both repeat and direct modes programmed into each unit. The radios must be programmed with the minimum number of channels called for in NCC guidelines, or as the SIEC specifies. The channels display will be in accordance with the NCC guidelines that have common alphanumeric nomenclature to avoid any misinterpretation of use.

## 6.3 Interoperable Technology

This Plan strongly supports use of deployable (or Transportable) systems and fixed interoperable technology such as gateways, repeater clusters, console audio bridges, etc. Deployable systems are prepackaged systems that can deploy by ground or air to an incident to provide additional coverage and capacity on interoperability channels. This will minimize the expense of installing extensive fixed infrastructure and recognizes the difficulty of providing complete coverage of the region due to environmental constraints. Agencies should have conventional deployable systems capable of being tuned to any of the interoperability tactical channels. Those agencies that are part of a multi-agency trunked system and commonly provide mutual aid to each other are encouraged to have trunked deployable systems that operate on the tactical channels designated by the FCC for this use. The SIEC will develop the operational details for deploying these systems. It is expected that the tactical channels set aside for trunked operation will be heavily used by deployable systems. Therefore, the tactical channels cannot be assigned to augment general use trunked systems.

## 6.4 Monitoring of Calling Channels

It is desired that the State of California in collaboration with its designated CalSIEC regions, take responsibility for developing plans that provide guidance to all CalSIEC beneficiaries, and that designated Public Safety Answering Point dispatch centers be required to monitor the interoperability and calling channels. This responsibility should

include assignments of channels to mutual aid incidents as required. The SIEC, at its discretion, will develop operational guidelines for this function and will determine the specific frequencies in the respective CalSIEC plans and Standard Operating Procedures. The Region 6 RPC anticipates that these SOPs will then be applied consistently by all public safety agencies and the pertinent channels monitored by PSAPs within the Region.

## **7. Interference Protection**

The frequency allotment list is based on an assumption that the systems will be engineered on an interference-limited basis not a noise-limited basis. Agencies are expected to design their systems for maximum signal levels within their coverage area and minimum levels in the coverage area of other co-channel or adjacent channel users. Coverage area is normally the geographical boundaries of the Agency(s) served plus a three-mile area beyond.

In rural low density populated areas alternative design criteria may be used, following submittal of comprehensive and compelling documentation to the planning committee, and approval by the committee.

Systems should be designed for minimum signal strength of 40 dBμ emissions throughout the applicant's jurisdiction, AND shall not emit beyond 3 miles beyond the borders of the jurisdiction in order to ensure maximum protection. TIA/EIA TSB-88.1-C (or latest version) will be used to determine harmful interference assuming 40 dBμ, or greater, signal in all systems coverage areas. This may require patterned antennas and extra sites compared to a design that assumes noise limited coverage.

## **8. Allocation of Narrowband “General Use” Spectrum**

All agencies requesting spectrum during the initial filing window (see Section 4) will be allotted channels excepting as noted in Section 8.4. Requests for voice channels will be allocated on the basis of one 12.5 kHz channel per one voice channel requested.

The Frequency Advisory Subcommittee will request information via a series of questions to each agency requesting spectrum. This information will be designed to validate the need for spectrum and prevent duplicated requests involving multi-agency systems. Small agencies will be encouraged to join multi-agency systems if possible, however, compelling justification will be considered on a case by case basis regardless of the jurisdiction of the applicant.

### **8.1 Low power Secondary Operations**

To facilitate portable/low power mobile operation by any licensee, and to provide channels for such operation without impacting the use of primary channels, certain low power secondary use will be permitted. Any public safety entity otherwise licensed to use one or more channels under this Plan may receive authorization to license any additional channel for secondary use as defined in 47 CFR §90.7, subject to the following criteria:

- All operation of units on such authorized channels will be considered secondary to other licensees on both co-channel and adjacent channels.
- No channels on or adjacent to, those designated in the Plan for wide area operation and/or mutual aid use will be authorized.
- Channels will be authorized for use in specific areas only, such areas to be within the licensees authorized operational area.
- Maximum power will be limited to six (6) watts ERP.
- Use aboard aircraft predicated by adherence to all pertinent FCC rules.
- Applications for channels may be submitted to the Review and Revision Committee for consideration at any time and must be accompanied by a showing of need. The Committee may select and authorize licensing of these secondary-use channels after consideration of potential interference to co-channel and adjacent channel allotments, allocations, and licensees. Authorization may be granted for use of any suitable channel, without prior allotment or allocation to the requesting agency.
- In the event the channels authorized for low power secondary operation are needed by others during any window opening for reassignment, no protection will be afforded to the licensed secondary user, and they may be required to change frequencies or surrender licenses to prevent interference to primary use channels.

## 8.2 Low power Channels

The FCC in the 700 MHz band plan set-aside channels 1 - 8 paired with 961 – 968 and 949 – 958 paired with 1909 – 1918 for low power use for on-scene incident response purposes using mobiles and portables subject to Commission-approved regional planning committee regional plans. Channels 9 –12 paired with 969 – 972 and 959 – 960 paired with 1919 – 1920 are licensed nationwide for itinerant operation.

**These channels may operate using analog operation. To facilitate analog modulation this plan will allow aggregation of two channels for 12.5 kHz bandwidth.**

On scene temporary base and mobile relay stations are allowed (to the extent FCC rules allow) with an antenna height limit of 6.1 meter (20 feet) above the ground. However, users are encouraged to operate in simplex mode whenever possible. This plan does not limit use to only analog operations. These channels are intended for use in a wide variety of applications that may require digital modulation types.

In its dialog leading up to Title 47 CFR §90.531 allocating the twenty-four low power 6.25 kHz frequency pairs (of which eighteen fall under RPC jurisdiction)<sup>5</sup>, the Federal Communications Commission (FCC) suggested that there is a potential for multiple low power applications, and absent a compelling showing, a sharing approach be employed rather than making exclusive assignments for each specific application because low power operations can co-exist [in relatively close proximity] on the same frequencies with minimal potential for interference due to the power restrictions defined in 47 CFR §90.531(b)(3) and 47 CFR §90.531(b)(4). Whereas advantages exist in not making assignments, the reverse is also true. If, for example, firefighters operate on a specific frequency or set of frequencies in one area, there is some logic in replicating that template throughout the region for firefighter equipment. If there are no assignments, such a

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<sup>5</sup> See paragraphs 35 through 39 in FCC's Third Memorandum Opinion and Order for WT Docket No. 96-86 adopted September 18, 2000.

replication is unlikely. In seeking the middle ground with positive attributes showing up both for assignments and no assignments, we recommend the following regarding assignments associated with the eighteen narrowband channels for which the RPC's have responsibility.

- Channel #'s 1-4 and 949-952 are set aside as generic channels for use by public safety agencies operating within Region 6, and the complementary channel #'s 961-964 and 1909-1912 are set aside as generic channels also for use by public safety agencies including GPS differential correction telemetry for channels 961- 964 and 1909-1912 likewise operating within Region 6.
- Channel #'s 5-8 are designated as Fire Protection channels for licensing and exclusive use by the Fire Protection discipline, and the complementary channel #'s 965-968 are set aside as Law Enforcement channels also for licensing and exclusive use by the Law Enforcement discipline.
- Channel #'s 955-956 are set aside as Fire Protection channels for licensing and exclusive use by the Fire Protection discipline, and the complementary channel #'s 1915-1916 are set aside as Law Enforcement channels also for licensing and exclusive use by the Law Enforcement discipline.
- Channel #'s 957-958 are set aside as Fire Protection/Law Enforcement channels for licensing and use by the Fire Protection and Law Enforcement disciplines, and the complementary channel #'s 1917-1918 are set aside as Fire Protection/Law Enforcement Simplex operations may occur on either the base or mobile channels. Users are cautioned to coordinate on scene use among all agencies involved. Users should license multiple channels and be prepared to operate on alternate channels at any given operational area.

### 8.3 System Implementation

The most populous areas in Northern California will be precluded from immediately implementing systems due to protection requirements of existing television stations. Therefore, this plan will not require agencies to implement systems using the 700 MHz spectrum allocated to them until June 12, 2009. Once the general use spectrum is available, and is allocated to a specific agency through the process defined in this plan, the agency has to implement a system meeting the guidelines as specified in Title 47 CFR §90.155 and 47 CFR §90.551. If an agency does not implement in the timeframes specified, that agency's allocation may be removed from the allocation list. An agency may file a request with the Region Chair for an extension of time to implement. The request should include all details describing why the agency has not implemented and a new implementation schedule. The Committee Chair will advertise this request and set a date for the full committee to vote on the request. If no request for extension is received or the Committee votes not to extend implementation, the Committee Chair will advertise this action and set a filing window to give other agencies a chance to request an allocation of that spectrum.

## 8.4 Priority for Receiving Spectrum Allotments

As part of the 700 MHz frequency planning effort for Region 6, the stakeholders proposed a frequency allotment beyond the plan defined in the CAPRAD allotment. This decision was made in order to maximize the amount of 12.5 kHz voice channels that could be reused and deployed in systems throughout Region 6, especially the urban areas. The frequency allotment table is included as Attachment A.

The Region 6 RPC agreed to conduct a “repacking study” in an effort to realize the maximum quantity of available channels within the region, and further, defined the parameters that the study was to be based upon. Those parameters included the geographical division by county as a practical point of reference.

This table is only an allotment plan, and does not allocate these channels to a given county or agency. The frequencies are allotted by geographic boundaries designated by the geo-political boundaries of the California counties within Region 6. Any eligible Public Safety agency, as defined in Section 5.1, will be afforded the opportunity to apply for these frequencies through the process defined in this plan. Specific frequency allocations to an Agency, City, County, Tribal Entity or Special District will be allocated after the application process is formalized and approved.

## 8.5 Resolution to Accommodate Conflicting Applications

In the event that future spectrum requests conflict and cannot be fully accommodated, the following criteria will be used to determine priority for allotment. This criteria will only be used if two requests are received in the same time frame and efforts within the RPC to fully accommodate the applicants have failed. Otherwise, the first come first served procedure of Section 5.2 will be used.

- Priority is given to users fundamentally involved with the protection of life and Property and to those able to implement sooner than others
- Priority is given to shared multi-agency systems. These systems can be either groups of separate departments within a larger agency or groups of agencies operating together under a large blanket agency.
- Immediate documented funding must be available to construct the system using these 700 MHz frequencies
- Ability of system to provide radio interoperability
- Channel loading based on “traffic” measurements or predictions, or anticipated airtime for new systems, and excluding inefficient uses such as individual calls (two users), telephone interconnects, and inefficiently designed systems.
- Lack of availability of alternative spectrum
- Efficiency of system design respective to use of the 700MHz spectrum; requests for six (6) or more channels must use trunking technology
- Existing use of licensed and vacated channels (“Give backs”)

This process, if required will be treated as a dispute and the procedures outlined in Section 5.6 using the above criteria will be used to allot the frequencies.



## **9. Coordination with Adjacent Regions**

The Chair will send final draft copies of this plan to the conveners or Chair, as appropriate, to each adjacent region, including Arizona (Region 3), noting that Region 3 is not formally required to respond or to reciprocate with region 6. The number of General Use narrowband channels available to adjacent regions is at least half of the total channels. Excepting the Las Vegas and Reno/South Lake Tahoe areas in Nevada, the border regions are sparsely populated, and generally the NPSPAC band frequencies are not built out. Therefore, adjacent regions should be able to satisfy voice and data spectrum requests along their border areas with Region 6. If Nevada has problems satisfying requests in the Las Vegas and Reno/South Lake Tahoe areas, this committee pledges to work with Nevada to resolve any issues.

## **10. Spectrum Utilization**

In the high population density areas of Northern California previously mentioned, spectrum for public safety is chronically short to support all needs. Northern California is among those regions considered to use its allotted spectrum efficiently. The NPSPAC plan for Northern California also contains among the strictest RF signal levels for reuse of any in the nation.

As indicated in Section 7 above, to optimize interference protection, agencies are expected to design their systems for maximum signal levels within their coverage area and minimum levels in the coverage area of other co-channel and adjacent channel users. To ensure this protection, systems should be designed for minimum signal strength of 40 dB $\mu$  emissions throughout the applicant's jurisdiction, AND shall not emit beyond 3 miles beyond the borders of the jurisdiction in order to ensure maximum protection. In order to limit signal power propagating outside the coverage area, agencies are required to restrict adjacent and alternate channel signal levels to 60 dB $\mu$ , or less and co-channel signal levels to 5 dB $\mu$ , or less for 12.5 kHz channels at-and-beyond their borders with adjacent agencies.

With this plan, the public safety providers are striving to utilize the spectrum as efficiently as possible. The requests for voice channels totaled more channels than readily available within the Region. To help satisfy this need, the Frequency Advisory Subcommittee will examine all requests, along with additional information requested of all agencies, to identify any duplicate requests from multi-agency systems, or any requests that were considered unreasonable to satisfy real needs over the next 15 years. From this, the workgroup hopes to find opportunities for shared or common systems. The Committee will work with all parties to accomplish this. In the event that a perceived host cannot accommodate the agencies, then their needs will be met by reducing the host allotment as appropriate.

The Spectrum Planning Workgroup in Northern California's Region 6 recommended that allotments be made on the basis of one 12.5 kHz channel for each voice channel request. Region 6 maintained this allows for the full agency needs to be met and conforms to the FCC intent to require use of technology that yields the equivalency to one voice path for each 6.25 kHz of spectrum.

Due to the existing TV assignments the populous areas of Northern California cannot use this spectrum until June 12, 2009, predicated upon review and approval of the Region 6 RPC, proper frequency coordination, and FCC approval. The agencies are on notice that they will not receive additional allotments due to using technology that yields less than one voice channel per 6.25 kHz of spectrum.

## **Attachment A**

### **Region 6 Frequency Allotment Plan<sup>6</sup>**

As part of the 700 MHz frequency planning effort for Region 6, the stakeholders have proposed a frequency allotment beyond the plan offered by NPSTC and the CAPRAD Study. This decision was made in order to maximize the amount of 12.5 kHz voice channels that could be reused and deployed in systems throughout Region 6.

The frequency allotment table below defines how these narrowband 700MHz frequencies can be deployed within Region 6, with the maximum amount of reuse, and minimizing interference. This table is only an allotment plan, and does not allocate these channels to a given county or agency. The frequencies are allotted by geographic boundaries designated by the geo-political boundaries of the California counties within Region 6. Any eligible Public Safety agency, as defined in Section 5.1, has the ability to apply for these frequencies through the process defined in this plan. Specific frequency allocations to an Agency, City, County, Tribal Entity or Special District will be allotted after the application process is formalized and approved.

The following list is the table that represents the culmination of the “Repacked 700 MHz Plan” and becomes an integral component of the Region 6 Plan:

Note: Highlighted Entries below represents channels with 25 kHz of bandwidth.

<b>County</b>	<b>FCC Channel</b>	<b>Bandwidth</b>	<b>Mobile Frequency</b>	<b>Base Frequency</b>
Alameda	15-16	12.50 kHz	799.093750 MHz	769.093750 MHz
Alameda	41-42	12.50 kHz	799.256250 MHz	769.256250 MHz
Alameda	47-48	12.50 kHz	799.293750 MHz	769.293750 MHz
Alameda	53-54	12.50 kHz	799.331250 MHz	769.331250 MHz
Alameda	83-84	12.50 kHz	799.518750 MHz	769.518750 MHz
Alameda	93-94	12.50 kHz	799.581250 MHz	769.581250 MHz
Alameda	123-124	12.50 kHz	799.768750 MHz	769.768750 MHz
Alameda	133-134	12.50 kHz	799.831250 MHz	769.831250 MHz
Alameda	139-140	12.50 kHz	799.868750 MHz	769.868750 MHz

<sup>6</sup> Region 6 chose not to adopt the frequency allotment plan “as-is” developed by the NPSTC and reflected in the CAPRAD and instead has Repacked its frequency plan in order to realize the maximum quantity of channels within the region, in particular the urban areas.

Alameda	163-164	12.50 kHz	800.018750 MHz	770.018750 MHz
Alameda	175-176	12.50 kHz	800.093750 MHz	770.093750 MHz
Alameda	207-208	12.50 kHz	800.293750 MHz	770.293750 MHz
Alameda	211-212	12.50 kHz	800.318750 MHz	770.318750 MHz
Alameda	213-214	12.50 kHz	800.331250 MHz	770.331250 MHz
Alameda	219-220	12.50 kHz	800.368750 MHz	770.368750 MHz
Alameda	251-252	12.50 kHz	800.568750 MHz	770.568750 MHz
Alameda	283-284	12.50 kHz	800.768750 MHz	770.768750 MHz
Alameda	295-296	12.50 kHz	800.843750 MHz	770.843750 MHz
Alameda	327-328	12.50 kHz	801.043750 MHz	771.043750 MHz
Alameda	339-340	12.50 kHz	801.118750 MHz	771.118750 MHz
Alameda	351-352	12.50 kHz	801.193750 MHz	771.193750 MHz
Alameda	363-364	12.50 kHz	801.268750 MHz	771.268750 MHz
Alameda	375-376	12.50 kHz	801.343750 MHz	771.343750 MHz
Alameda	387-388	12.50 kHz	801.418750 MHz	771.418750 MHz
Alameda	399-400	12.50 kHz	801.493750 MHz	771.493750 MHz
Alameda	411-412	12.50 kHz	801.568750 MHz	771.568750 MHz
Alameda	423-424	12.50 kHz	801.643750 MHz	771.643750 MHz
Alameda	435-436	12.50 kHz	801.718750 MHz	771.718750 MHz
Alameda	447-448	12.50 kHz	801.793750 MHz	771.793750 MHz
Alameda	459-460	12.50 kHz	801.868750 MHz	771.868750 MHz
Alameda	471-472	12.50 kHz	801.943750 MHz	771.943750 MHz
Alameda	483-484	12.50 kHz	802.018750 MHz	772.018750 MHz
Alameda	495-496	12.50 kHz	802.093750 MHz	772.093750 MHz
Alameda	507-508	12.50 kHz	802.168750 MHz	772.168750 MHz
Alameda	519-520	12.50 kHz	802.243750 MHz	772.243750 MHz
Alameda	531-532	12.50 kHz	802.318750 MHz	772.318750 MHz
Alameda	543-544	12.50 kHz	802.393750 MHz	772.393750 MHz
Alameda	555-556	12.50 kHz	802.468750 MHz	772.468750 MHz
Alameda	567-568	12.50 kHz	802.543750 MHz	772.543750 MHz
Alameda	579-580	12.50 kHz	802.618750 MHz	772.618750 MHz
Alameda	591-592	12.50 kHz	802.693750 MHz	772.693750 MHz

Alameda	603-604	12.50 kHz	802.768750 MHz	772.768750 MHz
Alameda	615-616	12.50 kHz	802.843750 MHz	772.843750 MHz
Alameda	627-628	12.50 kHz	802.918750 MHz	772.918750 MHz
Alameda	639-640	12.50 kHz	802.993750 MHz	772.993750 MHz
Alameda	671-672	12.50 kHz	803.193750 MHz	773.193750 MHz
Alameda	703-704	12.50 kHz	803.393750 MHz	773.393750 MHz
Alameda	715-716	12.50 kHz	803.468750 MHz	773.468750 MHz
Alameda	747-748	12.50 kHz	803.668750 MHz	773.668750 MHz
Alameda	759-760	12.50 kHz	803.743750 MHz	773.743750 MHz
Alameda	791-792	12.50 kHz	803.943750 MHz	773.943750 MHz
Alameda	823-824	12.50 kHz	804.143750 MHz	774.143750 MHz
Alameda	835-836	12.50 kHz	804.218750 MHz	774.218750 MHz
Alameda	867-868	12.50 kHz	804.418750 MHz	774.418750 MHz
Alameda	879-880	12.50 kHz	804.493750 MHz	774.493750 MHz
Alameda	911-912	12.50 kHz	804.693750 MHz	774.693750 MHz
Alameda	943-944	12.50 kHz	804.893750 MHz	774.893750 MHz
Alpine	13-16	25.00 kHz	799.087500 MHz	769.087500 MHz
Alpine	53-56	25.00 kHz	799.337500 MHz	769.337500 MHz
Alpine	133-136	25.00 kHz	799.837500 MHz	769.837500 MHz
Alpine	341-344	25.00 kHz	801.137500 MHz	771.137500 MHz
Alpine	493-496	25.00 kHz	802.087500 MHz	772.087500 MHz
Alpine	549-552	25.00 kHz	802.437500 MHz	772.437500 MHz
Alpine	601-604	25.00 kHz	802.762500 MHz	772.762500 MHz
Alpine	701-704	25.00 kHz	803.387500 MHz	773.387500 MHz
Alpine	745-748	25.00 kHz	803.662500 MHz	773.662500 MHz
Alpine	833-836	25.00 kHz	804.212500 MHz	774.212500 MHz
Alpine	909-912	25.00 kHz	804.687500 MHz	774.687500 MHz
Amador	81-84	25.00 kHz	799.512500 MHz	769.512500 MHz
Amador	125-126	12.50 kHz	799.781250 MHz	769.781250 MHz
Amador	281-284	25.00 kHz	800.762500 MHz	770.762500 MHz
Amador	295-296	12.50 kHz	800.843750 MHz	770.843750 MHz
Amador	393-396	25.00 kHz	801.462500 MHz	771.462500 MHz



Amador	453-456	25.00 kHz	801.837500 MHz	771.837500 MHz
Amador	505-508	25.00 kHz	802.162500 MHz	772.162500 MHz
Amador	709-710	12.50 kHz	803.431250 MHz	773.431250 MHz
Butte	53-56	25.00 kHz	799.337500 MHz	769.337500 MHz
Butte	137-140	25.00 kHz	799.862500 MHz	769.862500 MHz
Butte	213-216	25.00 kHz	800.337500 MHz	770.337500 MHz
Butte	257-260	25.00 kHz	800.612500 MHz	770.612500 MHz
Butte	297-300	25.00 kHz	800.862500 MHz	770.862500 MHz
Butte	337-340	25.00 kHz	801.112500 MHz	771.112500 MHz
Butte	401-404	25.00 kHz	801.512500 MHz	771.512500 MHz
Butte	453-456	25.00 kHz	801.837500 MHz	771.837500 MHz
Butte	501-504	25.00 kHz	802.137500 MHz	772.137500 MHz
Butte	557-560	25.00 kHz	802.487500 MHz	772.487500 MHz
Butte	625-628	25.00 kHz	802.912500 MHz	772.912500 MHz
Butte	709-712	25.00 kHz	803.437500 MHz	773.437500 MHz
Butte	757-758	12.50 kHz	803.731250 MHz	773.731250 MHz
Butte	799-800	12.50 kHz	803.993750 MHz	773.993750 MHz
Butte	863-864	12.50 kHz	804.393750 MHz	774.393750 MHz
Butte	907-908	12.50 kHz	804.668750 MHz	774.668750 MHz
Butte	945-948	25.00 kHz	804.912500 MHz	774.912500 MHz
Calaveras	211-212	12.50 kHz	800.318750 MHz	770.318750 MHz
Calaveras	419-420	12.50 kHz	801.618750 MHz	771.618750 MHz
Calaveras	461-464	25.00 kHz	801.887500 MHz	771.887500 MHz
Calaveras	535-536	12.50 kHz	802.343750 MHz	772.343750 MHz
Calaveras	583-584	12.50 kHz	802.643750 MHz	772.643750 MHz
Calaveras	627-628	12.50 kHz	802.918750 MHz	772.918750 MHz
Calaveras	637-640	25.00 kHz	802.987500 MHz	772.987500 MHz
Calaveras	671-672	12.50 kHz	803.193750 MHz	773.193750 MHz
Calaveras	677-680	25.00 kHz	803.237500 MHz	773.237500 MHz
Colusa	129-130	12.50 kHz	799.806250 MHz	769.806250 MHz
Colusa	169-170	12.50 kHz	800.056250 MHz	770.056250 MHz
Colusa	201-202	12.50 kHz	800.256250 MHz	770.256250 MHz

Colusa	245-246	12.50 kHz	800.531250 MHz	770.531250 MHz
Colusa	289-290	12.50 kHz	800.806250 MHz	770.806250 MHz
Colusa	321-322	12.50 kHz	801.006250 MHz	771.006250 MHz
Colusa	333-334	12.50 kHz	801.081250 MHz	771.081250 MHz
Colusa	369-370	12.50 kHz	801.306250 MHz	771.306250 MHz
Colusa	381-382	12.50 kHz	801.381250 MHz	771.381250 MHz
Colusa	393-394	12.50 kHz	801.456250 MHz	771.456250 MHz
Colusa	417-418	12.50 kHz	801.606250 MHz	771.606250 MHz
Colusa	429-430	12.50 kHz	801.681250 MHz	771.681250 MHz
Colusa	441-442	12.50 kHz	801.756250 MHz	771.756250 MHz
Colusa	489-490	12.50 kHz	802.056250 MHz	772.056250 MHz
Colusa	513-514	12.50 kHz	802.206250 MHz	772.206250 MHz
Colusa	525-526	12.50 kHz	802.281250 MHz	772.281250 MHz
Colusa	537-538	12.50 kHz	802.356250 MHz	772.356250 MHz
Colusa	561-562	12.50 kHz	802.506250 MHz	772.506250 MHz
Colusa	573-574	12.50 kHz	802.581250 MHz	772.581250 MHz
Colusa	585-586	12.50 kHz	802.656250 MHz	772.656250 MHz
Colusa	609-610	12.50 kHz	802.806250 MHz	772.806250 MHz
Colusa	621-622	12.50 kHz	802.881250 MHz	772.881250 MHz
Colusa	633-634	12.50 kHz	802.956250 MHz	772.956250 MHz
Colusa	665-666	12.50 kHz	803.156250 MHz	773.156250 MHz
Colusa	709-710	12.50 kHz	803.431250 MHz	773.431250 MHz
Colusa	741-742	12.50 kHz	803.631250 MHz	773.631250 MHz
Colusa	753-754	12.50 kHz	803.706250 MHz	773.706250 MHz
Colusa	785-786	12.50 kHz	803.906250 MHz	773.906250 MHz
Colusa	797-798	12.50 kHz	803.981250 MHz	773.981250 MHz
Colusa	829-830	12.50 kHz	804.181250 MHz	774.181250 MHz
Colusa	861-862	12.50 kHz	804.381250 MHz	774.381250 MHz
Colusa	873-874	12.50 kHz	804.456250 MHz	774.456250 MHz
Colusa	905-906	12.50 kHz	804.656250 MHz	774.656250 MHz
Contra Costa	89-90	12.50 kHz	799.556250 MHz	769.556250 MHz
Contra Costa	129-130	12.50 kHz	799.806250 MHz	769.806250 MHz

Contra Costa	169-170	12.50 kHz	800.056250 MHz	770.056250 MHz
Contra Costa	201-202	12.50 kHz	800.256250 MHz	770.256250 MHz
Contra Costa	245-246	12.50 kHz	800.531250 MHz	770.531250 MHz
Contra Costa	257-258	12.50 kHz	800.606250 MHz	770.606250 MHz
Contra Costa	289-290	12.50 kHz	800.806250 MHz	770.806250 MHz
Contra Costa	321-322	12.50 kHz	801.006250 MHz	771.006250 MHz
Contra Costa	333-334	12.50 kHz	801.081250 MHz	771.081250 MHz
Contra Costa	345-346	12.50 kHz	801.156250 MHz	771.156250 MHz
Contra Costa	369-370	12.50 kHz	801.306250 MHz	771.306250 MHz
Contra Costa	381-382	12.50 kHz	801.381250 MHz	771.381250 MHz
Contra Costa	393-394	12.50 kHz	801.456250 MHz	771.456250 MHz
Contra Costa	417-418	12.50 kHz	801.606250 MHz	771.606250 MHz
Contra Costa	429-430	12.50 kHz	801.681250 MHz	771.681250 MHz
Contra Costa	441-442	12.50 kHz	801.756250 MHz	771.756250 MHz
Contra Costa	465-466	12.50 kHz	801.906250 MHz	771.906250 MHz
Contra Costa	477-478	12.50 kHz	801.981250 MHz	771.981250 MHz
Contra Costa	489-490	12.50 kHz	802.056250 MHz	772.056250 MHz
Contra Costa	513-514	12.50 kHz	802.206250 MHz	772.206250 MHz
Contra Costa	525-526	12.50 kHz	802.281250 MHz	772.281250 MHz
Contra Costa	537-538	12.50 kHz	802.356250 MHz	772.356250 MHz
Contra Costa	561-562	12.50 kHz	802.506250 MHz	772.506250 MHz
Contra Costa	573-574	12.50 kHz	802.581250 MHz	772.581250 MHz
Contra Costa	585-586	12.50 kHz	802.656250 MHz	772.656250 MHz
Contra Costa	609-610	12.50 kHz	802.806250 MHz	772.806250 MHz
Contra Costa	621-622	12.50 kHz	802.881250 MHz	772.881250 MHz
Contra Costa	633-634	12.50 kHz	802.956250 MHz	772.956250 MHz
Contra Costa	665-666	12.50 kHz	803.156250 MHz	773.156250 MHz
Contra Costa	677-678	12.50 kHz	803.231250 MHz	773.231250 MHz
Contra Costa	709-710	12.50 kHz	803.431250 MHz	773.431250 MHz
Contra Costa	741-742	12.50 kHz	803.631250 MHz	773.631250 MHz
Contra Costa	753-754	12.50 kHz	803.706250 MHz	773.706250 MHz
Contra Costa	785-786	12.50 kHz	803.906250 MHz	773.906250 MHz

Contra Costa	797-798	12.50 kHz	803.981250 MHz	773.981250 MHz
Contra Costa	829-830	12.50 kHz	804.181250 MHz	774.181250 MHz
Contra Costa	861-862	12.50 kHz	804.381250 MHz	774.381250 MHz
Contra Costa	873-874	12.50 kHz	804.456250 MHz	774.456250 MHz
Contra Costa	905-906	12.50 kHz	804.656250 MHz	774.656250 MHz
Contra Costa	917-918	12.50 kHz	804.731250 MHz	774.731250 MHz
Del Norte	125-128	25.00 kHz	799.787500 MHz	769.787500 MHz
Del Norte	205-208	25.00 kHz	800.287500 MHz	770.287500 MHz
Del Norte	289-292	25.00 kHz	800.812500 MHz	770.812500 MHz
Del Norte	357-360	25.00 kHz	801.237500 MHz	771.237500 MHz
Del Norte	401-404	25.00 kHz	801.512500 MHz	771.512500 MHz
Del Norte	445-448	25.00 kHz	801.787500 MHz	771.787500 MHz
Del Norte	485-488	25.00 kHz	802.037500 MHz	772.037500 MHz
Del Norte	549-552	25.00 kHz	802.437500 MHz	772.437500 MHz
Del Norte	593-596	25.00 kHz	802.712500 MHz	772.712500 MHz
Del Norte	633-636	25.00 kHz	802.962500 MHz	772.962500 MHz
Del Norte	673-676	25.00 kHz	803.212500 MHz	773.212500 MHz
Del Norte	917-920	25.00 kHz	804.737500 MHz	774.737500 MHz
El Dorado	51-52	12.50 kHz	799.318750 MHz	769.318750 MHz
El Dorado	93-94	12.50 kHz	799.581250 MHz	769.581250 MHz
El Dorado	123-124	12.50 kHz	799.768750 MHz	769.768750 MHz
El Dorado	167-168	12.50 kHz	800.043750 MHz	770.043750 MHz
El Dorado	245-246	12.50 kHz	800.531250 MHz	770.531250 MHz
El Dorado	249-252	25.00 kHz	800.562500 MHz	770.562500 MHz
El Dorado	289-292	25.00 kHz	800.812500 MHz	770.812500 MHz
El Dorado	333-336	25.00 kHz	801.087500 MHz	771.087500 MHz
El Dorado	381-384	25.00 kHz	801.387500 MHz	771.387500 MHz
El Dorado	427-428	12.50 kHz	801.668750 MHz	771.668750 MHz
El Dorado	469-472	25.00 kHz	801.937500 MHz	771.937500 MHz
El Dorado	537-538	12.50 kHz	802.356250 MHz	772.356250 MHz
El Dorado	541-542	12.50 kHz	802.381250 MHz	772.381250 MHz
El Dorado	561-564	25.00 kHz	802.512500 MHz	772.512500 MHz

El Dorado	609-612	25.00 kHz	802.812500 MHz	772.812500 MHz
El Dorado	665-668	25.00 kHz	803.162500 MHz	773.162500 MHz
El Dorado	715-716	12.50 kHz	803.468750 MHz	773.468750 MHz
El Dorado	865-868	25.00 kHz	804.412500 MHz	774.412500 MHz
Fresno	15-16	12.50 kHz	799.093750 MHz	769.093750 MHz
Fresno	49-50	12.50 kHz	799.306250 MHz	769.306250 MHz
Fresno	53-54	12.50 kHz	799.331250 MHz	769.331250 MHz
Fresno	83-84	12.50 kHz	799.518750 MHz	769.518750 MHz
Fresno	93-94	12.50 kHz	799.581250 MHz	769.581250 MHz
Fresno	123-124	12.50 kHz	799.768750 MHz	769.768750 MHz
Fresno	133-134	12.50 kHz	799.831250 MHz	769.831250 MHz
Fresno	139-140	12.50 kHz	799.868750 MHz	769.868750 MHz
Fresno	163-164	12.50 kHz	800.018750 MHz	770.018750 MHz
Fresno	175-176	12.50 kHz	800.093750 MHz	770.093750 MHz
Fresno	207-208	12.50 kHz	800.293750 MHz	770.293750 MHz
Fresno	211-212	12.50 kHz	800.318750 MHz	770.318750 MHz
Fresno	213-214	12.50 kHz	800.331250 MHz	770.331250 MHz
Fresno	251-252	12.50 kHz	800.568750 MHz	770.568750 MHz
Fresno	283-284	12.50 kHz	800.768750 MHz	770.768750 MHz
Fresno	295-296	12.50 kHz	800.843750 MHz	770.843750 MHz
Fresno	351-352	12.50 kHz	801.193750 MHz	771.193750 MHz
Fresno	363-364	12.50 kHz	801.268750 MHz	771.268750 MHz
Fresno	375-376	12.50 kHz	801.343750 MHz	771.343750 MHz
Fresno	387-388	12.50 kHz	801.418750 MHz	771.418750 MHz
Fresno	395-396	12.50 kHz	801.468750 MHz	771.468750 MHz
Fresno	399-400	12.50 kHz	801.493750 MHz	771.493750 MHz
Fresno	411-412	12.50 kHz	801.568750 MHz	771.568750 MHz
Fresno	435-436	12.50 kHz	801.718750 MHz	771.718750 MHz
Fresno	449-450	12.50 kHz	801.806250 MHz	771.806250 MHz
Fresno	455-456	12.50 kHz	801.843750 MHz	771.843750 MHz
Fresno	459-460	12.50 kHz	801.868750 MHz	771.868750 MHz
Fresno	471-472	12.50 kHz	801.943750 MHz	771.943750 MHz

Fresno	495-496	12.50 kHz	802.093750 MHz	772.093750 MHz
Fresno	503-504	12.50 kHz	802.143750 MHz	772.143750 MHz
Fresno	507-508	12.50 kHz	802.168750 MHz	772.168750 MHz
Fresno	519-520	12.50 kHz	802.243750 MHz	772.243750 MHz
Fresno	543-544	12.50 kHz	802.393750 MHz	772.393750 MHz
Fresno	555-556	12.50 kHz	802.468750 MHz	772.468750 MHz
Fresno	567-568	12.50 kHz	802.543750 MHz	772.543750 MHz
Fresno	579-580	12.50 kHz	802.618750 MHz	772.618750 MHz
Fresno	591-592	12.50 kHz	802.693750 MHz	772.693750 MHz
Fresno	627-628	12.50 kHz	802.918750 MHz	772.918750 MHz
Fresno	639-640	12.50 kHz	802.993750 MHz	772.993750 MHz
Fresno	671-672	12.50 kHz	803.193750 MHz	773.193750 MHz
Fresno	703-704	12.50 kHz	803.393750 MHz	773.393750 MHz
Fresno	715-716	12.50 kHz	803.468750 MHz	773.468750 MHz
Fresno	747-748	12.50 kHz	803.668750 MHz	773.668750 MHz
Fresno	759-760	12.50 kHz	803.743750 MHz	773.743750 MHz
Fresno	793-794	12.50 kHz	803.956250 MHz	773.956250 MHz
Fresno	823-824	12.50 kHz	804.143750 MHz	774.143750 MHz
Fresno	835-836	12.50 kHz	804.218750 MHz	774.218750 MHz
Fresno	867-868	12.50 kHz	804.418750 MHz	774.418750 MHz
Fresno	879-880	12.50 kHz	804.493750 MHz	774.493750 MHz
Fresno	911-912	12.50 kHz	804.693750 MHz	774.693750 MHz
Fresno	943-944	12.50 kHz	804.893750 MHz	774.893750 MHz
Glenn	171-172	12.50 kHz	800.068750 MHz	770.068750 MHz
Glenn	203-204	12.50 kHz	800.268750 MHz	770.268750 MHz
Glenn	215-216	12.50 kHz	800.343750 MHz	770.343750 MHz
Glenn	247-248	12.50 kHz	800.543750 MHz	770.543750 MHz
Glenn	291-292	12.50 kHz	800.818750 MHz	770.818750 MHz
Glenn	323-324	12.50 kHz	801.018750 MHz	771.018750 MHz
Glenn	335-336	12.50 kHz	801.093750 MHz	771.093750 MHz
Glenn	349-350	12.50 kHz	801.181250 MHz	771.181250 MHz
Glenn	359-360	12.50 kHz	801.243750 MHz	771.243750 MHz



Glenn	451-452	12.50 kHz	801.818750 MHz	771.818750 MHz
Glenn	499-500	12.50 kHz	802.118750 MHz	772.118750 MHz
Glenn	639-640	12.50 kHz	802.993750 MHz	772.993750 MHz
Glenn	673-674	12.50 kHz	803.206250 MHz	773.206250 MHz
Glenn	751-752	12.50 kHz	803.693750 MHz	773.693750 MHz
Humboldt	45-48	25.00 kHz	799.287500 MHz	769.287500 MHz
Humboldt	165-168	25.00 kHz	800.037500 MHz	770.037500 MHz
Humboldt	213-216	25.00 kHz	800.337500 MHz	770.337500 MHz
Humboldt	253-256	25.00 kHz	800.587500 MHz	770.587500 MHz
Humboldt	325-328	25.00 kHz	801.037500 MHz	771.037500 MHz
Humboldt	385-388	25.00 kHz	801.412500 MHz	771.412500 MHz
Humboldt	425-428	25.00 kHz	801.662500 MHz	771.662500 MHz
Humboldt	473-476	25.00 kHz	801.962500 MHz	771.962500 MHz
Humboldt	513-516	25.00 kHz	802.212500 MHz	772.212500 MHz
Humboldt	561-564	25.00 kHz	802.512500 MHz	772.512500 MHz
Humboldt	601-604	25.00 kHz	802.762500 MHz	772.762500 MHz
Humboldt	665-668	25.00 kHz	803.162500 MHz	773.162500 MHz
Humboldt	709-712	25.00 kHz	803.437500 MHz	773.437500 MHz
Humboldt	781-784	25.00 kHz	803.887500 MHz	773.887500 MHz
Humboldt	821-824	25.00 kHz	804.137500 MHz	774.137500 MHz
Humboldt	865-868	25.00 kHz	804.412500 MHz	774.412500 MHz
Humboldt	945-948	25.00 kHz	804.912500 MHz	774.912500 MHz
Inyo	217-220	25.00 kHz	800.362500 MHz	770.362500 MHz
Inyo	337-340	25.00 kHz	801.112500 MHz	771.112500 MHz
Inyo	401-404	25.00 kHz	801.512500 MHz	771.512500 MHz
Inyo	445-448	25.00 kHz	801.787500 MHz	771.787500 MHz
Inyo	529-532	25.00 kHz	802.312500 MHz	772.312500 MHz
Inyo	569-572	25.00 kHz	802.562500 MHz	772.562500 MHz
Inyo	613-616	25.00 kHz	802.837500 MHz	772.837500 MHz
Inyo	661-664	25.00 kHz	803.137500 MHz	773.137500 MHz
Kings	43-44	12.50 kHz	799.268750 MHz	769.268750 MHz
Kings	125-126	12.50 kHz	799.781250 MHz	769.781250 MHz

Kings	161-162	12.50 kHz	800.006250 MHz	770.006250 MHz
Kings	177-178	12.50 kHz	800.106250 MHz	770.106250 MHz
Kings	259-260	12.50 kHz	800.618750 MHz	770.618750 MHz
Kings	337-340	25.00 kHz	801.112500 MHz	771.112500 MHz
Kings	481-484	25.00 kHz	802.012500 MHz	772.012500 MHz
Kings	509-510	12.50 kHz	802.181250 MHz	772.181250 MHz
Kings	529-532	25.00 kHz	802.312500 MHz	772.312500 MHz
Kings	573-576	25.00 kHz	802.587500 MHz	772.587500 MHz
Kings	613-616	25.00 kHz	802.837500 MHz	772.837500 MHz
Kings	661-662	12.50 kHz	803.131250 MHz	773.131250 MHz
Kings	677-678	12.50 kHz	803.231250 MHz	773.231250 MHz
Kings	717-718	12.50 kHz	803.481250 MHz	773.481250 MHz
Kings	781-782	12.50 kHz	803.881250 MHz	773.881250 MHz
Kings	789-790	12.50 kHz	803.931250 MHz	773.931250 MHz
Kings	837-838	12.50 kHz	804.231250 MHz	774.231250 MHz
Kings	945-946	12.50 kHz	804.906250 MHz	774.906250 MHz
Lake	41-42	12.50 kHz	799.256250 MHz	769.256250 MHz
Lake	47-48	12.50 kHz	799.293750 MHz	769.293750 MHz
Lake	53-54	12.50 kHz	799.331250 MHz	769.331250 MHz
Lake	83-84	12.50 kHz	799.518750 MHz	769.518750 MHz
Lake	93-94	12.50 kHz	799.581250 MHz	769.581250 MHz
Lake	123-124	12.50 kHz	799.768750 MHz	769.768750 MHz
Lake	133-134	12.50 kHz	799.831250 MHz	769.831250 MHz
Lake	139-140	12.50 kHz	799.868750 MHz	769.868750 MHz
Lake	163-164	12.50 kHz	800.018750 MHz	770.018750 MHz
Lake	175-176	12.50 kHz	800.093750 MHz	770.093750 MHz
Lake	207-208	12.50 kHz	800.293750 MHz	770.293750 MHz
Lake	211-212	12.50 kHz	800.318750 MHz	770.318750 MHz
Lake	213-214	12.50 kHz	800.331250 MHz	770.331250 MHz
Lake	219-220	12.50 kHz	800.368750 MHz	770.368750 MHz
Lake	251-252	12.50 kHz	800.568750 MHz	770.568750 MHz
Lake	283-284	12.50 kHz	800.768750 MHz	770.768750 MHz

Lake	295-296	12.50 kHz	800.843750 MHz	770.843750 MHz
Lake	327-328	12.50 kHz	801.043750 MHz	771.043750 MHz
Lake	339-340	12.50 kHz	801.118750 MHz	771.118750 MHz
Lake	351-352	12.50 kHz	801.193750 MHz	771.193750 MHz
Lake	363-364	12.50 kHz	801.268750 MHz	771.268750 MHz
Lake	375-376	12.50 kHz	801.343750 MHz	771.343750 MHz
Lake	387-388	12.50 kHz	801.418750 MHz	771.418750 MHz
Lake	399-400	12.50 kHz	801.493750 MHz	771.493750 MHz
Lake	411-412	12.50 kHz	801.568750 MHz	771.568750 MHz
Lake	423-424	12.50 kHz	801.643750 MHz	771.643750 MHz
Lake	435-436	12.50 kHz	801.718750 MHz	771.718750 MHz
Lake	447-448	12.50 kHz	801.793750 MHz	771.793750 MHz
Lake	459-460	12.50 kHz	801.868750 MHz	771.868750 MHz
Lake	471-472	12.50 kHz	801.943750 MHz	771.943750 MHz
Lake	483-484	12.50 kHz	802.018750 MHz	772.018750 MHz
Lake	495-496	12.50 kHz	802.093750 MHz	772.093750 MHz
Lake	507-508	12.50 kHz	802.168750 MHz	772.168750 MHz
Lake	519-520	12.50 kHz	802.243750 MHz	772.243750 MHz
Lake	531-532	12.50 kHz	802.318750 MHz	772.318750 MHz
Lake	543-544	12.50 kHz	802.393750 MHz	772.393750 MHz
Lake	555-556	12.50 kHz	802.468750 MHz	772.468750 MHz
Lake	567-568	12.50 kHz	802.543750 MHz	772.543750 MHz
Lake	579-580	12.50 kHz	802.618750 MHz	772.618750 MHz
Lake	591-592	12.50 kHz	802.693750 MHz	772.693750 MHz
Lake	603-604	12.50 kHz	802.768750 MHz	772.768750 MHz
Lake	615-616	12.50 kHz	802.843750 MHz	772.843750 MHz
Lake	627-628	12.50 kHz	802.918750 MHz	772.918750 MHz
Lake	671-672	12.50 kHz	803.193750 MHz	773.193750 MHz
Lake	703-704	12.50 kHz	803.393750 MHz	773.393750 MHz
Lake	715-716	12.50 kHz	803.468750 MHz	773.468750 MHz
Lake	747-748	12.50 kHz	803.668750 MHz	773.668750 MHz
Lake	791-792	12.50 kHz	803.943750 MHz	773.943750 MHz

Lake	823-824	12.50 kHz	804.143750 MHz	774.143750 MHz
Lake	835-836	12.50 kHz	804.218750 MHz	774.218750 MHz
Lake	867-868	12.50 kHz	804.418750 MHz	774.418750 MHz
Lake	879-880	12.50 kHz	804.493750 MHz	774.493750 MHz
Lake	911-912	12.50 kHz	804.693750 MHz	774.693750 MHz
Lake	943-944	12.50 kHz	804.893750 MHz	774.893750 MHz
Lassen	205-208	25.00 kHz	800.287500 MHz	770.287500 MHz
Lassen	353-356	25.00 kHz	801.212500 MHz	771.212500 MHz
Lassen	397-400	25.00 kHz	801.487500 MHz	771.487500 MHz
Lassen	469-472	25.00 kHz	801.937500 MHz	771.937500 MHz
Lassen	541-544	25.00 kHz	802.387500 MHz	772.387500 MHz
Lassen	585-588	25.00 kHz	802.662500 MHz	772.662500 MHz
Lassen	629-632	25.00 kHz	802.937500 MHz	772.937500 MHz
Lassen	701-704	25.00 kHz	803.387500 MHz	773.387500 MHz
Lassen	865-868	25.00 kHz	804.412500 MHz	774.412500 MHz
Madera	13-14	12.50 kHz	799.081250 MHz	769.081250 MHz
Madera	19-20	12.50 kHz	799.118750 MHz	769.118750 MHz
Madera	51-52	12.50 kHz	799.318750 MHz	769.318750 MHz
Madera	59-60	12.50 kHz	799.368750 MHz	769.368750 MHz
Madera	81-82	12.50 kHz	799.506250 MHz	769.506250 MHz
Madera	87-88	12.50 kHz	799.543750 MHz	769.543750 MHz
Madera	91-92	12.50 kHz	799.568750 MHz	769.568750 MHz
Madera	99-100	12.50 kHz	799.618750 MHz	769.618750 MHz
Madera	121-122	12.50 kHz	799.756250 MHz	769.756250 MHz
Madera	131-132	12.50 kHz	799.818750 MHz	769.818750 MHz
Madera	161-162	12.50 kHz	800.006250 MHz	770.006250 MHz
Madera	205-206	12.50 kHz	800.281250 MHz	770.281250 MHz
Madera	249-250	12.50 kHz	800.556250 MHz	770.556250 MHz
Madera	281-282	12.50 kHz	800.756250 MHz	770.756250 MHz
Madera	293-294	12.50 kHz	800.831250 MHz	770.831250 MHz
Madera	337-338	12.50 kHz	801.106250 MHz	771.106250 MHz
Madera	349-350	12.50 kHz	801.181250 MHz	771.181250 MHz

Madera	361-362	12.50 kHz	801.256250 MHz	771.256250 MHz
Madera	373-374	12.50 kHz	801.331250 MHz	771.331250 MHz
Madera	385-386	12.50 kHz	801.406250 MHz	771.406250 MHz
Madera	397-398	12.50 kHz	801.481250 MHz	771.481250 MHz
Madera	409-410	12.50 kHz	801.556250 MHz	771.556250 MHz
Madera	433-434	12.50 kHz	801.706250 MHz	771.706250 MHz
Madera	445-446	12.50 kHz	801.781250 MHz	771.781250 MHz
Madera	457-458	12.50 kHz	801.856250 MHz	771.856250 MHz
Madera	469-470	12.50 kHz	801.931250 MHz	771.931250 MHz
Madera	481-482	12.50 kHz	802.006250 MHz	772.006250 MHz
Madera	493-494	12.50 kHz	802.081250 MHz	772.081250 MHz
Madera	505-506	12.50 kHz	802.156250 MHz	772.156250 MHz
Madera	517-518	12.50 kHz	802.231250 MHz	772.231250 MHz
Madera	541-542	12.50 kHz	802.381250 MHz	772.381250 MHz
Madera	553-554	12.50 kHz	802.456250 MHz	772.456250 MHz
Madera	565-566	12.50 kHz	802.531250 MHz	772.531250 MHz
Madera	577-578	12.50 kHz	802.606250 MHz	772.606250 MHz
Madera	589-590	12.50 kHz	802.681250 MHz	772.681250 MHz
Madera	601-602	12.50 kHz	802.756250 MHz	772.756250 MHz
Madera	613-614	12.50 kHz	802.831250 MHz	772.831250 MHz
Madera	625-626	12.50 kHz	802.906250 MHz	772.906250 MHz
Madera	637-638	12.50 kHz	802.981250 MHz	772.981250 MHz
Madera	669-670	12.50 kHz	803.181250 MHz	773.181250 MHz
Madera	677-678	12.50 kHz	803.231250 MHz	773.231250 MHz
Madera	701-702	12.50 kHz	803.381250 MHz	773.381250 MHz
Madera	713-714	12.50 kHz	803.456250 MHz	773.456250 MHz
Madera	745-746	12.50 kHz	803.656250 MHz	773.656250 MHz
Madera	757-758	12.50 kHz	803.731250 MHz	773.731250 MHz
Madera	795-796	12.50 kHz	803.968750 MHz	773.968750 MHz
Madera	821-822	12.50 kHz	804.131250 MHz	774.131250 MHz
Madera	833-834	12.50 kHz	804.206250 MHz	774.206250 MHz
Madera	865-866	12.50 kHz	804.406250 MHz	774.406250 MHz

Madera	877-878	12.50 kHz	804.481250 MHz	774.481250 MHz
Madera	909-910	12.50 kHz	804.681250 MHz	774.681250 MHz
Madera	941-942	12.50 kHz	804.881250 MHz	774.881250 MHz
Marin	127-128	12.50 kHz	799.793750 MHz	769.793750 MHz
Marin	137-138	12.50 kHz	799.856250 MHz	769.856250 MHz
Marin	167-168	12.50 kHz	800.043750 MHz	770.043750 MHz
Marin	243-244	12.50 kHz	800.518750 MHz	770.518750 MHz
Marin	255-256	12.50 kHz	800.593750 MHz	770.593750 MHz
Marin	287-288	12.50 kHz	800.793750 MHz	770.793750 MHz
Marin	331-332	12.50 kHz	801.068750 MHz	771.068750 MHz
Marin	355-356	12.50 kHz	801.218750 MHz	771.218750 MHz
Marin	367-368	12.50 kHz	801.293750 MHz	771.293750 MHz
Marin	391-392	12.50 kHz	801.443750 MHz	771.443750 MHz
Marin	415-416	12.50 kHz	801.593750 MHz	771.593750 MHz
Marin	439-440	12.50 kHz	801.743750 MHz	771.743750 MHz
Marin	463-464	12.50 kHz	801.893750 MHz	771.893750 MHz
Marin	487-488	12.50 kHz	802.043750 MHz	772.043750 MHz
Marin	511-512	12.50 kHz	802.193750 MHz	772.193750 MHz
Marin	535-536	12.50 kHz	802.343750 MHz	772.343750 MHz
Marin	559-560	12.50 kHz	802.493750 MHz	772.493750 MHz
Marin	583-584	12.50 kHz	802.643750 MHz	772.643750 MHz
Marin	607-608	12.50 kHz	802.793750 MHz	772.793750 MHz
Marin	631-632	12.50 kHz	802.943750 MHz	772.943750 MHz
Marin	675-676	12.50 kHz	803.218750 MHz	773.218750 MHz
Marin	719-720	12.50 kHz	803.493750 MHz	773.493750 MHz
Marin	783-784	12.50 kHz	803.893750 MHz	773.893750 MHz
Marin	827-828	12.50 kHz	804.168750 MHz	774.168750 MHz
Marin	871-872	12.50 kHz	804.443750 MHz	774.443750 MHz
Marin	915-916	12.50 kHz	804.718750 MHz	774.718750 MHz
Marin	947-948	12.50 kHz	804.918750 MHz	774.918750 MHz
Mariposa	41-44	25.00 kHz	799.262500 MHz	769.262500 MHz
Mariposa	45-46	12.50 kHz	799.281250 MHz	769.281250 MHz



Mariposa	55-56	12.50 kHz	799.343750 MHz	769.343750 MHz
Mariposa	241-244	25.00 kHz	800.512500 MHz	770.512500 MHz
Mariposa	381-384	25.00 kHz	801.387500 MHz	771.387500 MHz
Mariposa	421-424	25.00 kHz	801.637500 MHz	771.637500 MHz
Mariposa	465-468	25.00 kHz	801.912500 MHz	771.912500 MHz
Mariposa	545-548	25.00 kHz	802.412500 MHz	772.412500 MHz
Mariposa	593-594	12.50 kHz	802.706250 MHz	772.706250 MHz
Mariposa	611-612	12.50 kHz	802.818750 MHz	772.818750 MHz
Mariposa	661-662	12.50 kHz	803.131250 MHz	773.131250 MHz
Mariposa	667-668	12.50 kHz	803.168750 MHz	773.168750 MHz
Mariposa	673-676	25.00 kHz	803.212500 MHz	773.212500 MHz
Mariposa	781-784	25.00 kHz	803.887500 MHz	773.887500 MHz
Mariposa	837-838	12.50 kHz	804.231250 MHz	774.231250 MHz
Mendocino	127-128	12.50 kHz	799.793750 MHz	769.793750 MHz
Mendocino	137-138	12.50 kHz	799.856250 MHz	769.856250 MHz
Mendocino	167-168	12.50 kHz	800.043750 MHz	770.043750 MHz
Mendocino	179-180	12.50 kHz	800.118750 MHz	770.118750 MHz
Mendocino	243-244	12.50 kHz	800.518750 MHz	770.518750 MHz
Mendocino	255-256	12.50 kHz	800.593750 MHz	770.593750 MHz
Mendocino	287-288	12.50 kHz	800.793750 MHz	770.793750 MHz
Mendocino	331-332	12.50 kHz	801.068750 MHz	771.068750 MHz
Mendocino	343-344	12.50 kHz	801.143750 MHz	771.143750 MHz
Mendocino	355-356	12.50 kHz	801.218750 MHz	771.218750 MHz
Mendocino	367-368	12.50 kHz	801.293750 MHz	771.293750 MHz
Mendocino	391-392	12.50 kHz	801.443750 MHz	771.443750 MHz
Mendocino	403-404	12.50 kHz	801.518750 MHz	771.518750 MHz
Mendocino	415-416	12.50 kHz	801.593750 MHz	771.593750 MHz
Mendocino	439-440	12.50 kHz	801.743750 MHz	771.743750 MHz
Mendocino	463-464	12.50 kHz	801.893750 MHz	771.893750 MHz
Mendocino	465-466	12.50 kHz	801.906250 MHz	771.906250 MHz
Mendocino	487-488	12.50 kHz	802.043750 MHz	772.043750 MHz
Mendocino	499-500	12.50 kHz	802.118750 MHz	772.118750 MHz

Mendocino	511-512	12.50 kHz	802.193750 MHz	772.193750 MHz
Mendocino	535-536	12.50 kHz	802.343750 MHz	772.343750 MHz
Mendocino	547-548	12.50 kHz	802.418750 MHz	772.418750 MHz
Mendocino	559-560	12.50 kHz	802.493750 MHz	772.493750 MHz
Mendocino	583-584	12.50 kHz	802.643750 MHz	772.643750 MHz
Mendocino	607-608	12.50 kHz	802.793750 MHz	772.793750 MHz
Mendocino	631-632	12.50 kHz	802.943750 MHz	772.943750 MHz
Mendocino	675-676	12.50 kHz	803.218750 MHz	773.218750 MHz
Mendocino	719-720	12.50 kHz	803.493750 MHz	773.493750 MHz
Mendocino	749-750	12.50 kHz	803.681250 MHz	773.681250 MHz
Mendocino	759-760	12.50 kHz	803.743750 MHz	773.743750 MHz
Mendocino	783-784	12.50 kHz	803.893750 MHz	773.893750 MHz
Mendocino	797-798	12.50 kHz	803.981250 MHz	773.981250 MHz
Mendocino	827-828	12.50 kHz	804.168750 MHz	774.168750 MHz
Mendocino	871-872	12.50 kHz	804.443750 MHz	774.443750 MHz
Mendocino	915-916	12.50 kHz	804.718750 MHz	774.718750 MHz
Mendocino	947-948	12.50 kHz	804.918750 MHz	774.918750 MHz
Merced	89-90	12.50 kHz	799.556250 MHz	769.556250 MHz
Merced	129-130	12.50 kHz	799.806250 MHz	769.806250 MHz
Merced	169-170	12.50 kHz	800.056250 MHz	770.056250 MHz
Merced	201-202	12.50 kHz	800.256250 MHz	770.256250 MHz
Merced	245-246	12.50 kHz	800.531250 MHz	770.531250 MHz
Merced	257-258	12.50 kHz	800.606250 MHz	770.606250 MHz
Merced	289-290	12.50 kHz	800.806250 MHz	770.806250 MHz
Merced	321-322	12.50 kHz	801.006250 MHz	771.006250 MHz
Merced	333-334	12.50 kHz	801.081250 MHz	771.081250 MHz
Merced	345-346	12.50 kHz	801.156250 MHz	771.156250 MHz
Merced	369-370	12.50 kHz	801.306250 MHz	771.306250 MHz
Merced	381-382	12.50 kHz	801.381250 MHz	771.381250 MHz
Merced	393-394	12.50 kHz	801.456250 MHz	771.456250 MHz
Merced	429-430	12.50 kHz	801.681250 MHz	771.681250 MHz
Merced	441-442	12.50 kHz	801.756250 MHz	771.756250 MHz

Merced	477-478	12.50 kHz	801.981250 MHz	771.981250 MHz
Merced	489-490	12.50 kHz	802.056250 MHz	772.056250 MHz
Merced	513-514	12.50 kHz	802.206250 MHz	772.206250 MHz
Merced	525-526	12.50 kHz	802.281250 MHz	772.281250 MHz
Merced	537-538	12.50 kHz	802.356250 MHz	772.356250 MHz
Merced	557-558	12.50 kHz	802.481250 MHz	772.481250 MHz
Merced	561-562	12.50 kHz	802.506250 MHz	772.506250 MHz
Merced	585-586	12.50 kHz	802.656250 MHz	772.656250 MHz
Merced	609-610	12.50 kHz	802.806250 MHz	772.806250 MHz
Merced	621-622	12.50 kHz	802.881250 MHz	772.881250 MHz
Merced	633-634	12.50 kHz	802.956250 MHz	772.956250 MHz
Merced	665-666	12.50 kHz	803.156250 MHz	773.156250 MHz
Merced	709-710	12.50 kHz	803.431250 MHz	773.431250 MHz
Merced	741-742	12.50 kHz	803.631250 MHz	773.631250 MHz
Merced	753-754	12.50 kHz	803.706250 MHz	773.706250 MHz
Merced	785-786	12.50 kHz	803.906250 MHz	773.906250 MHz
Merced	797-798	12.50 kHz	803.981250 MHz	773.981250 MHz
Merced	829-830	12.50 kHz	804.181250 MHz	774.181250 MHz
Merced	861-862	12.50 kHz	804.381250 MHz	774.381250 MHz
Merced	873-874	12.50 kHz	804.456250 MHz	774.456250 MHz
Merced	905-906	12.50 kHz	804.656250 MHz	774.656250 MHz
Merced	917-918	12.50 kHz	804.731250 MHz	774.731250 MHz
Modoc	81-84	25.00 kHz	799.512500 MHz	769.512500 MHz
Modoc	125-128	25.00 kHz	799.787500 MHz	769.787500 MHz
Modoc	169-172	25.00 kHz	800.062500 MHz	770.062500 MHz
Modoc	249-252	25.00 kHz	800.562500 MHz	770.562500 MHz
Modoc	361-364	25.00 kHz	801.262500 MHz	771.262500 MHz
Modoc	405-408	25.00 kHz	801.537500 MHz	771.537500 MHz
Modoc	445-448	25.00 kHz	801.787500 MHz	771.787500 MHz
Modoc	513-516	25.00 kHz	802.212500 MHz	772.212500 MHz
Modoc	609-612	25.00 kHz	802.812500 MHz	772.812500 MHz
Modoc	665-668	25.00 kHz	803.162500 MHz	773.162500 MHz

Modoc	709-712	25.00 kHz	803.437500 MHz	773.437500 MHz
Mono	173-176	25.00 kHz	800.087500 MHz	770.087500 MHz
Mono	325-328	25.00 kHz	801.037500 MHz	771.037500 MHz
Mono	365-368	25.00 kHz	801.287500 MHz	771.287500 MHz
Mono	485-488	25.00 kHz	802.037500 MHz	772.037500 MHz
Mono	557-560	25.00 kHz	802.487500 MHz	772.487500 MHz
Mono	633-636	25.00 kHz	802.962500 MHz	772.962500 MHz
Mono	861-864	25.00 kHz	804.387500 MHz	774.387500 MHz
Monterey	85-86	12.50 kHz	799.531250 MHz	769.531250 MHz
Monterey	95-96	12.50 kHz	799.593750 MHz	769.593750 MHz
Monterey	135-136	12.50 kHz	799.843750 MHz	769.843750 MHz
Monterey	137-138	12.50 kHz	799.856250 MHz	769.856250 MHz
Monterey	179-180	12.50 kHz	800.118750 MHz	770.118750 MHz
Monterey	203-204	12.50 kHz	800.268750 MHz	770.268750 MHz
Monterey	215-216	12.50 kHz	800.343750 MHz	770.343750 MHz
Monterey	253-254	12.50 kHz	800.581250 MHz	770.581250 MHz
Monterey	297-298	12.50 kHz	800.856250 MHz	770.856250 MHz
Monterey	335-336	12.50 kHz	801.093750 MHz	771.093750 MHz
Monterey	341-342	12.50 kHz	801.131250 MHz	771.131250 MHz
Monterey	343-344	12.50 kHz	801.143750 MHz	771.143750 MHz
Monterey	353-354	12.50 kHz	801.206250 MHz	771.206250 MHz
Monterey	357-358	12.50 kHz	801.231250 MHz	771.231250 MHz
Monterey	367-368	12.50 kHz	801.293750 MHz	771.293750 MHz
Monterey	379-380	12.50 kHz	801.368750 MHz	771.368750 MHz
Monterey	401-402	12.50 kHz	801.506250 MHz	771.506250 MHz
Monterey	417-418	12.50 kHz	801.606250 MHz	771.606250 MHz
Monterey	427-428	12.50 kHz	801.668750 MHz	771.668750 MHz
Monterey	453-454	12.50 kHz	801.831250 MHz	771.831250 MHz
Monterey	463-464	12.50 kHz	801.893750 MHz	771.893750 MHz
Monterey	547-548	12.50 kHz	802.418750 MHz	772.418750 MHz
Monterey	595-596	12.50 kHz	802.718750 MHz	772.718750 MHz
Monterey	663-664	12.50 kHz	803.143750 MHz	773.143750 MHz

Monterey	673-674	12.50 kHz	803.206250 MHz	773.206250 MHz
Monterey	707-708	12.50 kHz	803.418750 MHz	773.418750 MHz
Monterey	711-712	12.50 kHz	803.443750 MHz	773.443750 MHz
Monterey	743-744	12.50 kHz	803.643750 MHz	773.643750 MHz
Monterey	749-750	12.50 kHz	803.681250 MHz	773.681250 MHz
Monterey	755-756	12.50 kHz	803.718750 MHz	773.718750 MHz
Monterey	787-788	12.50 kHz	803.918750 MHz	773.918750 MHz
Monterey	799-800	12.50 kHz	803.993750 MHz	773.993750 MHz
Monterey	831-832	12.50 kHz	804.193750 MHz	774.193750 MHz
Monterey	863-864	12.50 kHz	804.393750 MHz	774.393750 MHz
Monterey	875-876	12.50 kHz	804.468750 MHz	774.468750 MHz
Monterey	907-908	12.50 kHz	804.668750 MHz	774.668750 MHz
Monterey	919-920	12.50 kHz	804.743750 MHz	774.743750 MHz
Napa	125-126	12.50 kHz	799.781250 MHz	769.781250 MHz
Napa	171-172	12.50 kHz	800.068750 MHz	770.068750 MHz
Napa	203-204	12.50 kHz	800.268750 MHz	770.268750 MHz
Napa	215-216	12.50 kHz	800.343750 MHz	770.343750 MHz
Napa	247-248	12.50 kHz	800.543750 MHz	770.543750 MHz
Napa	259-260	12.50 kHz	800.618750 MHz	770.618750 MHz
Napa	291-292	12.50 kHz	800.818750 MHz	770.818750 MHz
Napa	293-294	12.50 kHz	800.831250 MHz	770.831250 MHz
Napa	323-324	12.50 kHz	801.018750 MHz	771.018750 MHz
Napa	335-336	12.50 kHz	801.093750 MHz	771.093750 MHz
Napa	347-348	12.50 kHz	801.168750 MHz	771.168750 MHz
Napa	359-360	12.50 kHz	801.243750 MHz	771.243750 MHz
Napa	361-362	12.50 kHz	801.256250 MHz	771.256250 MHz
Napa	373-374	12.50 kHz	801.331250 MHz	771.331250 MHz
Napa	403-404	12.50 kHz	801.518750 MHz	771.518750 MHz
Napa	451-452	12.50 kHz	801.818750 MHz	771.818750 MHz
Napa	499-500	12.50 kHz	802.118750 MHz	772.118750 MHz
Napa	517-518	12.50 kHz	802.231250 MHz	772.231250 MHz
Napa	529-530	12.50 kHz	802.306250 MHz	772.306250 MHz

Napa	541-542	12.50 kHz	802.381250 MHz	772.381250 MHz
Napa	553-554	12.50 kHz	802.456250 MHz	772.456250 MHz
Napa	577-578	12.50 kHz	802.606250 MHz	772.606250 MHz
Napa	595-596	12.50 kHz	802.718750 MHz	772.718750 MHz
Napa	637-638	12.50 kHz	802.981250 MHz	772.981250 MHz
Napa	751-752	12.50 kHz	803.693750 MHz	773.693750 MHz
Napa	757-758	12.50 kHz	803.731250 MHz	773.731250 MHz
Napa	839-840	12.50 kHz	804.243750 MHz	774.243750 MHz
Napa	865-866	12.50 kHz	804.406250 MHz	774.406250 MHz
Napa	877-878	12.50 kHz	804.481250 MHz	774.481250 MHz
Napa	941-942	12.50 kHz	804.881250 MHz	774.881250 MHz
Nevada	209-212	25.00 kHz	800.312500 MHz	770.312500 MHz
Nevada	361-364	25.00 kHz	801.262500 MHz	771.262500 MHz
Nevada	405-408	25.00 kHz	801.537500 MHz	771.537500 MHz
Nevada	445-448	25.00 kHz	801.787500 MHz	771.787500 MHz
Nevada	489-492	25.00 kHz	802.062500 MHz	772.062500 MHz
Nevada	547-548	12.50 kHz	802.418750 MHz	772.418750 MHz
Nevada	617-620	25.00 kHz	802.862500 MHz	772.862500 MHz
Nevada	749-752	25.00 kHz	803.687500 MHz	773.687500 MHz
Nevada	789-792	25.00 kHz	803.937500 MHz	773.937500 MHz
Nevada	873-876	25.00 kHz	804.462500 MHz	774.462500 MHz
Placer	19-20	12.50 kHz	799.118750 MHz	769.118750 MHz
Placer	59-60	12.50 kHz	799.368750 MHz	769.368750 MHz
Placer	89-92	25.00 kHz	799.562500 MHz	769.562500 MHz
Placer	99-100	12.50 kHz	799.618750 MHz	769.618750 MHz
Placer	121-122	12.50 kHz	799.756250 MHz	769.756250 MHz
Placer	129-132	25.00 kHz	799.812500 MHz	769.812500 MHz
Placer	169-172	25.00 kHz	800.062500 MHz	770.062500 MHz
Placer	175-176	12.50 kHz	800.093750 MHz	770.093750 MHz
Placer	243-244	12.50 kHz	800.518750 MHz	770.518750 MHz
Placer	247-248	12.50 kHz	800.543750 MHz	770.543750 MHz
Placer	259-260	12.50 kHz	800.618750 MHz	770.618750 MHz



Placer	293-294	12.50 kHz	800.831250 MHz	770.831250 MHz
Placer	321-324	25.00 kHz	801.012500 MHz	771.012500 MHz
Placer	399-400	12.50 kHz	801.493750 MHz	771.493750 MHz
Placer	415-416	12.50 kHz	801.593750 MHz	771.593750 MHz
Placer	435-436	12.50 kHz	801.718750 MHz	771.718750 MHz
Placer	457-460	25.00 kHz	801.862500 MHz	771.862500 MHz
Placer	475-476	12.50 kHz	801.968750 MHz	771.968750 MHz
Placer	515-516	12.50 kHz	802.218750 MHz	772.218750 MHz
Placer	527-528	12.50 kHz	802.293750 MHz	772.293750 MHz
Placer	529-532	25.00 kHz	802.312500 MHz	772.312500 MHz
Placer	533-534	12.50 kHz	802.331250 MHz	772.331250 MHz
Placer	577-580	25.00 kHz	802.612500 MHz	772.612500 MHz
Placer	591-592	12.50 kHz	802.693750 MHz	772.693750 MHz
Placer	635-636	12.50 kHz	802.968750 MHz	772.968750 MHz
Placer	675-676	12.50 kHz	803.218750 MHz	773.218750 MHz
Placer	707-708	12.50 kHz	803.418750 MHz	773.418750 MHz
Placer	839-840	12.50 kHz	804.243750 MHz	774.243750 MHz
Placer	917-918	12.50 kHz	804.731250 MHz	774.731250 MHz
Plumas	85-88	25.00 kHz	799.537500 MHz	769.537500 MHz
Plumas	245-248	25.00 kHz	800.537500 MHz	770.537500 MHz
Plumas	417-420	25.00 kHz	801.612500 MHz	771.612500 MHz
Plumas	485-488	25.00 kHz	802.037500 MHz	772.037500 MHz
Plumas	573-576	25.00 kHz	802.587500 MHz	772.587500 MHz
Plumas	669-672	25.00 kHz	803.187500 MHz	773.187500 MHz
Sacramento	17-18	12.50 kHz	799.106250 MHz	769.106250 MHz
Sacramento	43-44	12.50 kHz	799.268750 MHz	769.268750 MHz
Sacramento	49-50	12.50 kHz	799.306250 MHz	769.306250 MHz
Sacramento	85-86	12.50 kHz	799.531250 MHz	769.531250 MHz
Sacramento	95-96	12.50 kHz	799.593750 MHz	769.593750 MHz
Sacramento	135-136	12.50 kHz	799.843750 MHz	769.843750 MHz
Sacramento	165-166	12.50 kHz	800.031250 MHz	770.031250 MHz
Sacramento	177-178	12.50 kHz	800.106250 MHz	770.106250 MHz

Sacramento	209-210	12.50 kHz	800.306250 MHz	770.306250 MHz
Sacramento	241-242	12.50 kHz	800.506250 MHz	770.506250 MHz
Sacramento	253-254	12.50 kHz	800.581250 MHz	770.581250 MHz
Sacramento	285-286	12.50 kHz	800.781250 MHz	770.781250 MHz
Sacramento	329-330	12.50 kHz	801.056250 MHz	771.056250 MHz
Sacramento	341-342	12.50 kHz	801.131250 MHz	771.131250 MHz
Sacramento	365-366	12.50 kHz	801.281250 MHz	771.281250 MHz
Sacramento	389-390	12.50 kHz	801.431250 MHz	771.431250 MHz
Sacramento	401-402	12.50 kHz	801.506250 MHz	771.506250 MHz
Sacramento	413-414	12.50 kHz	801.581250 MHz	771.581250 MHz
Sacramento	425-426	12.50 kHz	801.656250 MHz	771.656250 MHz
Sacramento	449-450	12.50 kHz	801.806250 MHz	771.806250 MHz
Sacramento	461-462	12.50 kHz	801.881250 MHz	771.881250 MHz
Sacramento	473-474	12.50 kHz	801.956250 MHz	771.956250 MHz
Sacramento	485-486	12.50 kHz	802.031250 MHz	772.031250 MHz
Sacramento	497-498	12.50 kHz	802.106250 MHz	772.106250 MHz
Sacramento	509-510	12.50 kHz	802.181250 MHz	772.181250 MHz
Sacramento	533-534	12.50 kHz	802.331250 MHz	772.331250 MHz
Sacramento	545-546	12.50 kHz	802.406250 MHz	772.406250 MHz
Sacramento	557-558	12.50 kHz	802.481250 MHz	772.481250 MHz
Sacramento	569-570	12.50 kHz	802.556250 MHz	772.556250 MHz
Sacramento	581-582	12.50 kHz	802.631250 MHz	772.631250 MHz
Sacramento	593-594	12.50 kHz	802.706250 MHz	772.706250 MHz
Sacramento	605-606	12.50 kHz	802.781250 MHz	772.781250 MHz
Sacramento	617-618	12.50 kHz	802.856250 MHz	772.856250 MHz
Sacramento	629-630	12.50 kHz	802.931250 MHz	772.931250 MHz
Sacramento	661-662	12.50 kHz	803.131250 MHz	773.131250 MHz
Sacramento	673-674	12.50 kHz	803.206250 MHz	773.206250 MHz
Sacramento	705-706	12.50 kHz	803.406250 MHz	773.406250 MHz
Sacramento	717-718	12.50 kHz	803.481250 MHz	773.481250 MHz
Sacramento	749-750	12.50 kHz	803.681250 MHz	773.681250 MHz
Sacramento	781-782	12.50 kHz	803.881250 MHz	773.881250 MHz

Sacramento	793-794	12.50 kHz	803.956250 MHz	773.956250 MHz
Sacramento	825-826	12.50 kHz	804.156250 MHz	774.156250 MHz
Sacramento	837-838	12.50 kHz	804.231250 MHz	774.231250 MHz
Sacramento	869-870	12.50 kHz	804.431250 MHz	774.431250 MHz
Sacramento	901-902	12.50 kHz	804.631250 MHz	774.631250 MHz
Sacramento	913-914	12.50 kHz	804.706250 MHz	774.706250 MHz
Sacramento	945-946	12.50 kHz	804.906250 MHz	774.906250 MHz
San Benito	17-18	12.50 kHz	799.106250 MHz	769.106250 MHz
San Benito	57-58	12.50 kHz	799.356250 MHz	769.356250 MHz
San Benito	473-474	12.50 kHz	801.956250 MHz	771.956250 MHz
San Benito	515-516	12.50 kHz	802.218750 MHz	772.218750 MHz
San Benito	527-528	12.50 kHz	802.293750 MHz	772.293750 MHz
San Benito	539-540	12.50 kHz	802.368750 MHz	772.368750 MHz
San Benito	551-552	12.50 kHz	802.443750 MHz	772.443750 MHz
San Benito	563-564	12.50 kHz	802.518750 MHz	772.518750 MHz
San Benito	587-588	12.50 kHz	802.668750 MHz	772.668750 MHz
San Benito	599-600	12.50 kHz	802.743750 MHz	772.743750 MHz
San Benito	611-612	12.50 kHz	802.818750 MHz	772.818750 MHz
San Benito	623-624	12.50 kHz	802.893750 MHz	772.893750 MHz
San Benito	635-636	12.50 kHz	802.968750 MHz	772.968750 MHz
San Benito	667-668	12.50 kHz	803.168750 MHz	773.168750 MHz
San Benito	679-680	12.50 kHz	803.243750 MHz	773.243750 MHz
San Benito	827-828	12.50 kHz	804.168750 MHz	774.168750 MHz
San Benito	871-872	12.50 kHz	804.443750 MHz	774.443750 MHz
San Benito	913-914	12.50 kHz	804.706250 MHz	774.706250 MHz
San Francisco	43-44	12.50 kHz	799.268750 MHz	769.268750 MHz
San Francisco	57-58	12.50 kHz	799.356250 MHz	769.356250 MHz
San Francisco	85-86	12.50 kHz	799.531250 MHz	769.531250 MHz
San Francisco	97-98	12.50 kHz	799.606250 MHz	769.606250 MHz
San Francisco	135-136	12.50 kHz	799.843750 MHz	769.843750 MHz
San Francisco	177-178	12.50 kHz	800.106250 MHz	770.106250 MHz
San Francisco	241-242	12.50 kHz	800.506250 MHz	770.506250 MHz

San Francisco	285-286	12.50 kHz	800.781250 MHz	770.781250 MHz
San Francisco	299-300	12.50 kHz	800.868750 MHz	770.868750 MHz
San Francisco	341-342	12.50 kHz	801.131250 MHz	771.131250 MHz
San Francisco	357-358	12.50 kHz	801.231250 MHz	771.231250 MHz
San Francisco	379-380	12.50 kHz	801.368750 MHz	771.368750 MHz
San Francisco	405-406	12.50 kHz	801.531250 MHz	771.531250 MHz
San Francisco	427-428	12.50 kHz	801.668750 MHz	771.668750 MHz
San Francisco	453-454	12.50 kHz	801.831250 MHz	771.831250 MHz
San Francisco	475-476	12.50 kHz	801.968750 MHz	771.968750 MHz
San Francisco	501-502	12.50 kHz	802.131250 MHz	772.131250 MHz
San Francisco	523-524	12.50 kHz	802.268750 MHz	772.268750 MHz
San Francisco	549-550	12.50 kHz	802.431250 MHz	772.431250 MHz
San Francisco	571-572	12.50 kHz	802.568750 MHz	772.568750 MHz
San Francisco	597-598	12.50 kHz	802.731250 MHz	772.731250 MHz
San Francisco	619-620	12.50 kHz	802.868750 MHz	772.868750 MHz
San Francisco	661-662	12.50 kHz	803.131250 MHz	773.131250 MHz
San Francisco	673-674	12.50 kHz	803.206250 MHz	773.206250 MHz
San Francisco	707-708	12.50 kHz	803.418750 MHz	773.418750 MHz
San Francisco	749-750	12.50 kHz	803.681250 MHz	773.681250 MHz
San Francisco	793-794	12.50 kHz	803.956250 MHz	773.956250 MHz
San Francisco	825-826	12.50 kHz	804.156250 MHz	774.156250 MHz
San Francisco	869-870	12.50 kHz	804.431250 MHz	774.431250 MHz
San Francisco	903-904	12.50 kHz	804.643750 MHz	774.643750 MHz
San Francisco	945-946	12.50 kHz	804.906250 MHz	774.906250 MHz
San Joaquin	179-180	12.50 kHz	800.118750 MHz	770.118750 MHz
San Joaquin	297-298	12.50 kHz	800.856250 MHz	770.856250 MHz
San Joaquin	343-344	12.50 kHz	801.143750 MHz	771.143750 MHz
San Joaquin	405-406	12.50 kHz	801.531250 MHz	771.531250 MHz
San Joaquin	437-438	12.50 kHz	801.731250 MHz	771.731250 MHz
San Joaquin	475-476	12.50 kHz	801.968750 MHz	771.968750 MHz
San Joaquin	501-502	12.50 kHz	802.131250 MHz	772.131250 MHz
San Joaquin	515-516	12.50 kHz	802.218750 MHz	772.218750 MHz

San Joaquin	523-524	12.50 kHz	802.268750 MHz	772.268750 MHz
San Joaquin	539-540	12.50 kHz	802.368750 MHz	772.368750 MHz
San Joaquin	547-548	12.50 kHz	802.418750 MHz	772.418750 MHz
San Joaquin	551-552	12.50 kHz	802.443750 MHz	772.443750 MHz
San Joaquin	571-572	12.50 kHz	802.568750 MHz	772.568750 MHz
San Joaquin	587-588	12.50 kHz	802.668750 MHz	772.668750 MHz
San Joaquin	595-596	12.50 kHz	802.718750 MHz	772.718750 MHz
San Joaquin	599-600	12.50 kHz	802.743750 MHz	772.743750 MHz
San Joaquin	619-620	12.50 kHz	802.868750 MHz	772.868750 MHz
San Joaquin	623-624	12.50 kHz	802.893750 MHz	772.893750 MHz
San Joaquin	631-632	12.50 kHz	802.943750 MHz	772.943750 MHz
San Joaquin	663-664	12.50 kHz	803.143750 MHz	773.143750 MHz
San Joaquin	711-712	12.50 kHz	803.443750 MHz	773.443750 MHz
San Joaquin	743-744	12.50 kHz	803.643750 MHz	773.643750 MHz
San Joaquin	755-756	12.50 kHz	803.718750 MHz	773.718750 MHz
San Joaquin	787-788	12.50 kHz	803.918750 MHz	773.918750 MHz
San Joaquin	799-800	12.50 kHz	803.993750 MHz	773.993750 MHz
San Joaquin	831-832	12.50 kHz	804.193750 MHz	774.193750 MHz
San Joaquin	863-864	12.50 kHz	804.393750 MHz	774.393750 MHz
San Joaquin	875-876	12.50 kHz	804.468750 MHz	774.468750 MHz
San Joaquin	907-908	12.50 kHz	804.668750 MHz	774.668750 MHz
San Joaquin	915-916	12.50 kHz	804.718750 MHz	774.718750 MHz
San Joaquin	919-920	12.50 kHz	804.743750 MHz	774.743750 MHz
San Mateo	17-18	12.50 kHz	799.106250 MHz	769.106250 MHz
San Mateo	49-50	12.50 kHz	799.306250 MHz	769.306250 MHz
San Mateo	55-56	12.50 kHz	799.343750 MHz	769.343750 MHz
San Mateo	95-96	12.50 kHz	799.593750 MHz	769.593750 MHz
San Mateo	125-126	12.50 kHz	799.781250 MHz	769.781250 MHz
San Mateo	165-166	12.50 kHz	800.031250 MHz	770.031250 MHz
San Mateo	209-210	12.50 kHz	800.306250 MHz	770.306250 MHz
San Mateo	253-254	12.50 kHz	800.581250 MHz	770.581250 MHz
San Mateo	297-298	12.50 kHz	800.856250 MHz	770.856250 MHz

San Mateo	329-330	12.50 kHz	801.056250 MHz	771.056250 MHz
San Mateo	353-354	12.50 kHz	801.206250 MHz	771.206250 MHz
San Mateo	365-366	12.50 kHz	801.281250 MHz	771.281250 MHz
San Mateo	377-378	12.50 kHz	801.356250 MHz	771.356250 MHz
San Mateo	389-390	12.50 kHz	801.431250 MHz	771.431250 MHz
San Mateo	401-402	12.50 kHz	801.506250 MHz	771.506250 MHz
San Mateo	413-414	12.50 kHz	801.581250 MHz	771.581250 MHz
San Mateo	425-426	12.50 kHz	801.656250 MHz	771.656250 MHz
San Mateo	437-438	12.50 kHz	801.731250 MHz	771.731250 MHz
San Mateo	449-450	12.50 kHz	801.806250 MHz	771.806250 MHz
San Mateo	461-462	12.50 kHz	801.881250 MHz	771.881250 MHz
San Mateo	473-474	12.50 kHz	801.956250 MHz	771.956250 MHz
San Mateo	485-486	12.50 kHz	802.031250 MHz	772.031250 MHz
San Mateo	497-498	12.50 kHz	802.106250 MHz	772.106250 MHz
San Mateo	509-510	12.50 kHz	802.181250 MHz	772.181250 MHz
San Mateo	521-522	12.50 kHz	802.256250 MHz	772.256250 MHz
San Mateo	533-534	12.50 kHz	802.331250 MHz	772.331250 MHz
San Mateo	545-546	12.50 kHz	802.406250 MHz	772.406250 MHz
San Mateo	557-558	12.50 kHz	802.481250 MHz	772.481250 MHz
San Mateo	569-570	12.50 kHz	802.556250 MHz	772.556250 MHz
San Mateo	581-582	12.50 kHz	802.631250 MHz	772.631250 MHz
San Mateo	593-594	12.50 kHz	802.706250 MHz	772.706250 MHz
San Mateo	605-606	12.50 kHz	802.781250 MHz	772.781250 MHz
San Mateo	617-618	12.50 kHz	802.856250 MHz	772.856250 MHz
San Mateo	629-630	12.50 kHz	802.931250 MHz	772.931250 MHz
San Mateo	705-706	12.50 kHz	803.406250 MHz	773.406250 MHz
San Mateo	717-718	12.50 kHz	803.481250 MHz	773.481250 MHz
San Mateo	781-782	12.50 kHz	803.881250 MHz	773.881250 MHz
San Mateo	795-796	12.50 kHz	803.968750 MHz	773.968750 MHz
San Mateo	837-838	12.50 kHz	804.231250 MHz	774.231250 MHz
San Mateo	901-902	12.50 kHz	804.631250 MHz	774.631250 MHz
San Mateo	913-914	12.50 kHz	804.706250 MHz	774.706250 MHz



Santa Clara	13-14	12.50 kHz	799.081250 MHz	769.081250 MHz
Santa Clara	19-20	12.50 kHz	799.118750 MHz	769.118750 MHz
Santa Clara	45-46	12.50 kHz	799.281250 MHz	769.281250 MHz
Santa Clara	51-52	12.50 kHz	799.318750 MHz	769.318750 MHz
Santa Clara	59-60	12.50 kHz	799.368750 MHz	769.368750 MHz
Santa Clara	81-82	12.50 kHz	799.506250 MHz	769.506250 MHz
Santa Clara	87-88	12.50 kHz	799.543750 MHz	769.543750 MHz
Santa Clara	91-92	12.50 kHz	799.568750 MHz	769.568750 MHz
Santa Clara	99-100	12.50 kHz	799.618750 MHz	769.618750 MHz
Santa Clara	121-122	12.50 kHz	799.756250 MHz	769.756250 MHz
Santa Clara	131-132	12.50 kHz	799.818750 MHz	769.818750 MHz
Santa Clara	161-162	12.50 kHz	800.006250 MHz	770.006250 MHz
Santa Clara	173-174	12.50 kHz	800.081250 MHz	770.081250 MHz
Santa Clara	205-206	12.50 kHz	800.281250 MHz	770.281250 MHz
Santa Clara	217-218	12.50 kHz	800.356250 MHz	770.356250 MHz
Santa Clara	249-250	12.50 kHz	800.556250 MHz	770.556250 MHz
Santa Clara	281-282	12.50 kHz	800.756250 MHz	770.756250 MHz
Santa Clara	293-294	12.50 kHz	800.831250 MHz	770.831250 MHz
Santa Clara	325-326	12.50 kHz	801.031250 MHz	771.031250 MHz
Santa Clara	337-338	12.50 kHz	801.106250 MHz	771.106250 MHz
Santa Clara	349-350	12.50 kHz	801.181250 MHz	771.181250 MHz
Santa Clara	361-362	12.50 kHz	801.256250 MHz	771.256250 MHz
Santa Clara	373-374	12.50 kHz	801.331250 MHz	771.331250 MHz
Santa Clara	385-386	12.50 kHz	801.406250 MHz	771.406250 MHz
Santa Clara	397-398	12.50 kHz	801.481250 MHz	771.481250 MHz
Santa Clara	409-410	12.50 kHz	801.556250 MHz	771.556250 MHz
Santa Clara	421-422	12.50 kHz	801.631250 MHz	771.631250 MHz
Santa Clara	433-434	12.50 kHz	801.706250 MHz	771.706250 MHz
Santa Clara	445-446	12.50 kHz	801.781250 MHz	771.781250 MHz
Santa Clara	457-458	12.50 kHz	801.856250 MHz	771.856250 MHz
Santa Clara	469-470	12.50 kHz	801.931250 MHz	771.931250 MHz
Santa Clara	481-482	12.50 kHz	802.006250 MHz	772.006250 MHz

Santa Clara	493-494	12.50 kHz	802.081250 MHz	772.081250 MHz
Santa Clara	505-506	12.50 kHz	802.156250 MHz	772.156250 MHz
Santa Clara	517-518	12.50 kHz	802.231250 MHz	772.231250 MHz
Santa Clara	529-530	12.50 kHz	802.306250 MHz	772.306250 MHz
Santa Clara	541-542	12.50 kHz	802.381250 MHz	772.381250 MHz
Santa Clara	553-554	12.50 kHz	802.456250 MHz	772.456250 MHz
Santa Clara	565-566	12.50 kHz	802.531250 MHz	772.531250 MHz
Santa Clara	577-578	12.50 kHz	802.606250 MHz	772.606250 MHz
Santa Clara	589-590	12.50 kHz	802.681250 MHz	772.681250 MHz
Santa Clara	601-602	12.50 kHz	802.756250 MHz	772.756250 MHz
Santa Clara	613-614	12.50 kHz	802.831250 MHz	772.831250 MHz
Santa Clara	625-626	12.50 kHz	802.906250 MHz	772.906250 MHz
Santa Clara	637-638	12.50 kHz	802.981250 MHz	772.981250 MHz
Santa Clara	669-670	12.50 kHz	803.181250 MHz	773.181250 MHz
Santa Clara	701-702	12.50 kHz	803.381250 MHz	773.381250 MHz
Santa Clara	713-714	12.50 kHz	803.456250 MHz	773.456250 MHz
Santa Clara	745-746	12.50 kHz	803.656250 MHz	773.656250 MHz
Santa Clara	757-758	12.50 kHz	803.731250 MHz	773.731250 MHz
Santa Clara	789-790	12.50 kHz	803.931250 MHz	773.931250 MHz
Santa Clara	821-822	12.50 kHz	804.131250 MHz	774.131250 MHz
Santa Clara	833-834	12.50 kHz	804.206250 MHz	774.206250 MHz
Santa Clara	865-866	12.50 kHz	804.406250 MHz	774.406250 MHz
Santa Clara	877-878	12.50 kHz	804.481250 MHz	774.481250 MHz
Santa Clara	909-910	12.50 kHz	804.681250 MHz	774.681250 MHz
Santa Clara	941-942	12.50 kHz	804.881250 MHz	774.881250 MHz
Santa Cruz	127-128	12.50 kHz	799.793750 MHz	769.793750 MHz
Santa Cruz	167-168	12.50 kHz	800.043750 MHz	770.043750 MHz
Santa Cruz	255-256	12.50 kHz	800.593750 MHz	770.593750 MHz
Santa Cruz	287-288	12.50 kHz	800.793750 MHz	770.793750 MHz
Santa Cruz	299-300	12.50 kHz	800.868750 MHz	770.868750 MHz
Santa Cruz	331-332	12.50 kHz	801.068750 MHz	771.068750 MHz
Santa Cruz	355-356	12.50 kHz	801.218750 MHz	771.218750 MHz

Santa Cruz	371-372	12.50 kHz	801.318750 MHz	771.318750 MHz
Santa Cruz	383-384	12.50 kHz	801.393750 MHz	771.393750 MHz
Santa Cruz	395-396	12.50 kHz	801.468750 MHz	771.468750 MHz
Santa Cruz	407-408	12.50 kHz	801.543750 MHz	771.543750 MHz
Santa Cruz	419-420	12.50 kHz	801.618750 MHz	771.618750 MHz
Santa Cruz	431-432	12.50 kHz	801.693750 MHz	771.693750 MHz
Santa Cruz	443-444	12.50 kHz	801.768750 MHz	771.768750 MHz
Santa Cruz	455-456	12.50 kHz	801.843750 MHz	771.843750 MHz
Santa Cruz	467-468	12.50 kHz	801.918750 MHz	771.918750 MHz
Santa Cruz	479-480	12.50 kHz	801.993750 MHz	771.993750 MHz
Santa Cruz	487-488	12.50 kHz	802.043750 MHz	772.043750 MHz
Santa Cruz	491-492	12.50 kHz	802.068750 MHz	772.068750 MHz
Santa Cruz	499-500	12.50 kHz	802.118750 MHz	772.118750 MHz
Santa Cruz	503-504	12.50 kHz	802.143750 MHz	772.143750 MHz
Santa Cruz	511-512	12.50 kHz	802.193750 MHz	772.193750 MHz
Santa Cruz	535-536	12.50 kHz	802.343750 MHz	772.343750 MHz
Santa Cruz	559-560	12.50 kHz	802.493750 MHz	772.493750 MHz
Santa Cruz	575-576	12.50 kHz	802.593750 MHz	772.593750 MHz
Santa Cruz	583-584	12.50 kHz	802.643750 MHz	772.643750 MHz
Santa Cruz	675-676	12.50 kHz	803.218750 MHz	773.218750 MHz
Santa Cruz	915-916	12.50 kHz	804.718750 MHz	774.718750 MHz
Santa Cruz	947-948	12.50 kHz	804.918750 MHz	774.918750 MHz
Shasta	49-52	25.00 kHz	799.312500 MHz	769.312500 MHz
Shasta	93-96	25.00 kHz	799.587500 MHz	769.587500 MHz
Shasta	129-130	12.50 kHz	799.806250 MHz	769.806250 MHz
Shasta	133-136	25.00 kHz	799.837500 MHz	769.837500 MHz
Shasta	177-180	25.00 kHz	800.112500 MHz	770.112500 MHz
Shasta	217-220	25.00 kHz	800.362500 MHz	770.362500 MHz
Shasta	289-292	25.00 kHz	800.812500 MHz	770.812500 MHz
Shasta	329-332	25.00 kHz	801.062500 MHz	771.062500 MHz
Shasta	391-392	12.50 kHz	801.443750 MHz	771.443750 MHz
Shasta	429-432	25.00 kHz	801.687500 MHz	771.687500 MHz

Shasta	477-480	25.00 kHz	801.987500 MHz	771.987500 MHz
Shasta	529-532	25.00 kHz	802.312500 MHz	772.312500 MHz
Shasta	567-568	12.50 kHz	802.543750 MHz	772.543750 MHz
Shasta	597-600	25.00 kHz	802.737500 MHz	772.737500 MHz
Shasta	637-640	25.00 kHz	802.987500 MHz	772.987500 MHz
Shasta	677-680	25.00 kHz	803.237500 MHz	773.237500 MHz
Shasta	745-748	25.00 kHz	803.662500 MHz	773.662500 MHz
Shasta	785-788	25.00 kHz	803.912500 MHz	773.912500 MHz
Shasta	825-826	12.50 kHz	804.156250 MHz	774.156250 MHz
Shasta	877-880	25.00 kHz	804.487500 MHz	774.487500 MHz
Shasta	941-944	25.00 kHz	804.887500 MHz	774.887500 MHz
Sierra	369-372	25.00 kHz	801.312500 MHz	771.312500 MHz
Sierra	521-524	25.00 kHz	802.262500 MHz	772.262500 MHz
Sierra	565-568	25.00 kHz	802.537500 MHz	772.537500 MHz
Sierra	605-608	25.00 kHz	802.787500 MHz	772.787500 MHz
Sierra	717-720	25.00 kHz	803.487500 MHz	773.487500 MHz
Siskiyou	241-244	25.00 kHz	800.512500 MHz	770.512500 MHz
Siskiyou	297-300	25.00 kHz	800.862500 MHz	770.862500 MHz
Siskiyou	337-340	25.00 kHz	801.112500 MHz	771.112500 MHz
Siskiyou	377-380	25.00 kHz	801.362500 MHz	771.362500 MHz
Siskiyou	437-440	25.00 kHz	801.737500 MHz	771.737500 MHz
Siskiyou	505-508	25.00 kHz	802.162500 MHz	772.162500 MHz
Siskiyou	577-580	25.00 kHz	802.612500 MHz	772.612500 MHz
Siskiyou	621-624	25.00 kHz	802.887500 MHz	772.887500 MHz
Siskiyou	717-720	25.00 kHz	803.487500 MHz	773.487500 MHz
Siskiyou	793-796	25.00 kHz	803.962500 MHz	773.962500 MHz
Siskiyou	833-836	25.00 kHz	804.212500 MHz	774.212500 MHz
Solano	13-14	12.50 kHz	799.081250 MHz	769.081250 MHz
Solano	45-46	12.50 kHz	799.281250 MHz	769.281250 MHz
Solano	51-52	12.50 kHz	799.318750 MHz	769.318750 MHz
Solano	59-60	12.50 kHz	799.368750 MHz	769.368750 MHz
Solano	81-82	12.50 kHz	799.506250 MHz	769.506250 MHz

Solano	87-88	12.50 kHz	799.543750 MHz	769.543750 MHz
Solano	91-92	12.50 kHz	799.568750 MHz	769.568750 MHz
Solano	99-100	12.50 kHz	799.618750 MHz	769.618750 MHz
Solano	121-122	12.50 kHz	799.756250 MHz	769.756250 MHz
Solano	131-132	12.50 kHz	799.818750 MHz	769.818750 MHz
Solano	161-162	12.50 kHz	800.006250 MHz	770.006250 MHz
Solano	173-174	12.50 kHz	800.081250 MHz	770.081250 MHz
Solano	205-206	12.50 kHz	800.281250 MHz	770.281250 MHz
Solano	217-218	12.50 kHz	800.356250 MHz	770.356250 MHz
Solano	249-250	12.50 kHz	800.556250 MHz	770.556250 MHz
Solano	281-282	12.50 kHz	800.756250 MHz	770.756250 MHz
Solano	325-326	12.50 kHz	801.031250 MHz	771.031250 MHz
Solano	337-338	12.50 kHz	801.106250 MHz	771.106250 MHz
Solano	349-350	12.50 kHz	801.181250 MHz	771.181250 MHz
Solano	385-386	12.50 kHz	801.406250 MHz	771.406250 MHz
Solano	409-410	12.50 kHz	801.556250 MHz	771.556250 MHz
Solano	421-422	12.50 kHz	801.631250 MHz	771.631250 MHz
Solano	613-614	12.50 kHz	802.831250 MHz	772.831250 MHz
Solano	789-790	12.50 kHz	803.931250 MHz	773.931250 MHz
Solano	865-866	12.50 kHz	804.406250 MHz	774.406250 MHz
Solano	909-910	12.50 kHz	804.681250 MHz	774.681250 MHz
Sonoma	19-20	12.50 kHz	799.118750 MHz	769.118750 MHz
Sonoma	377-378	12.50 kHz	801.356250 MHz	771.356250 MHz
Sonoma	397-398	12.50 kHz	801.481250 MHz	771.481250 MHz
Sonoma	433-434	12.50 kHz	801.706250 MHz	771.706250 MHz
Sonoma	445-446	12.50 kHz	801.781250 MHz	771.781250 MHz
Sonoma	457-458	12.50 kHz	801.856250 MHz	771.856250 MHz
Sonoma	469-470	12.50 kHz	801.931250 MHz	771.931250 MHz
Sonoma	481-482	12.50 kHz	802.006250 MHz	772.006250 MHz
Sonoma	493-494	12.50 kHz	802.081250 MHz	772.081250 MHz
Sonoma	505-506	12.50 kHz	802.156250 MHz	772.156250 MHz
Sonoma	515-516	12.50 kHz	802.218750 MHz	772.218750 MHz

Sonoma	527-528	12.50 kHz	802.293750 MHz	772.293750 MHz
Sonoma	539-540	12.50 kHz	802.368750 MHz	772.368750 MHz
Sonoma	551-552	12.50 kHz	802.443750 MHz	772.443750 MHz
Sonoma	563-564	12.50 kHz	802.518750 MHz	772.518750 MHz
Sonoma	575-576	12.50 kHz	802.593750 MHz	772.593750 MHz
Sonoma	587-588	12.50 kHz	802.668750 MHz	772.668750 MHz
Sonoma	599-600	12.50 kHz	802.743750 MHz	772.743750 MHz
Sonoma	605-606	12.50 kHz	802.781250 MHz	772.781250 MHz
Sonoma	611-612	12.50 kHz	802.818750 MHz	772.818750 MHz
Sonoma	617-618	12.50 kHz	802.856250 MHz	772.856250 MHz
Sonoma	623-624	12.50 kHz	802.893750 MHz	772.893750 MHz
Sonoma	625-626	12.50 kHz	802.906250 MHz	772.906250 MHz
Sonoma	635-636	12.50 kHz	802.968750 MHz	772.968750 MHz
Sonoma	663-664	12.50 kHz	803.143750 MHz	773.143750 MHz
Sonoma	667-668	12.50 kHz	803.168750 MHz	773.168750 MHz
Sonoma	679-680	12.50 kHz	803.243750 MHz	773.243750 MHz
Sonoma	701-702	12.50 kHz	803.381250 MHz	773.381250 MHz
Sonoma	713-714	12.50 kHz	803.456250 MHz	773.456250 MHz
Sonoma	745-746	12.50 kHz	803.656250 MHz	773.656250 MHz
Sonoma	755-756	12.50 kHz	803.718750 MHz	773.718750 MHz
Sonoma	787-788	12.50 kHz	803.918750 MHz	773.918750 MHz
Sonoma	799-800	12.50 kHz	803.993750 MHz	773.993750 MHz
Sonoma	821-822	12.50 kHz	804.131250 MHz	774.131250 MHz
Sonoma	831-832	12.50 kHz	804.193750 MHz	774.193750 MHz
Sonoma	863-864	12.50 kHz	804.393750 MHz	774.393750 MHz
Sonoma	875-876	12.50 kHz	804.468750 MHz	774.468750 MHz
Stanislaus	171-172	12.50 kHz	800.068750 MHz	770.068750 MHz
Stanislaus	177-178	12.50 kHz	800.106250 MHz	770.106250 MHz
Stanislaus	215-216	12.50 kHz	800.343750 MHz	770.343750 MHz
Stanislaus	247-248	12.50 kHz	800.543750 MHz	770.543750 MHz
Stanislaus	259-260	12.50 kHz	800.618750 MHz	770.618750 MHz
Stanislaus	291-292	12.50 kHz	800.818750 MHz	770.818750 MHz

Stanislaus	323-324	12.50 kHz	801.018750 MHz	771.018750 MHz
Stanislaus	335-336	12.50 kHz	801.093750 MHz	771.093750 MHz
Stanislaus	347-348	12.50 kHz	801.168750 MHz	771.168750 MHz
Stanislaus	359-360	12.50 kHz	801.243750 MHz	771.243750 MHz
Stanislaus	403-404	12.50 kHz	801.518750 MHz	771.518750 MHz
Stanislaus	407-408	12.50 kHz	801.543750 MHz	771.543750 MHz
Stanislaus	439-440	12.50 kHz	801.743750 MHz	771.743750 MHz
Stanislaus	443-444	12.50 kHz	801.768750 MHz	771.768750 MHz
Stanislaus	451-452	12.50 kHz	801.818750 MHz	771.818750 MHz
Stanislaus	497-498	12.50 kHz	802.106250 MHz	772.106250 MHz
Stanislaus	521-522	12.50 kHz	802.256250 MHz	772.256250 MHz
Stanislaus	549-550	12.50 kHz	802.431250 MHz	772.431250 MHz
Stanislaus	581-582	12.50 kHz	802.631250 MHz	772.631250 MHz
Stanislaus	597-598	12.50 kHz	802.731250 MHz	772.731250 MHz
Stanislaus	607-608	12.50 kHz	802.793750 MHz	772.793750 MHz
Stanislaus	629-630	12.50 kHz	802.931250 MHz	772.931250 MHz
Stanislaus	705-706	12.50 kHz	803.406250 MHz	773.406250 MHz
Stanislaus	719-720	12.50 kHz	803.493750 MHz	773.493750 MHz
Stanislaus	751-752	12.50 kHz	803.693750 MHz	773.693750 MHz
Stanislaus	839-840	12.50 kHz	804.243750 MHz	774.243750 MHz
Stanislaus	901-902	12.50 kHz	804.631250 MHz	774.631250 MHz
Sutter	15-16	12.50 kHz	799.093750 MHz	769.093750 MHz
Sutter	345-348	25.00 kHz	801.162500 MHz	771.162500 MHz
Sutter	389-392	25.00 kHz	801.437500 MHz	771.437500 MHz
Sutter	477-478	12.50 kHz	801.981250 MHz	771.981250 MHz
Sutter	571-572	12.50 kHz	802.568750 MHz	772.568750 MHz
Sutter	677-680	25.00 kHz	803.237500 MHz	773.237500 MHz
Sutter	783-784	12.50 kHz	803.893750 MHz	773.893750 MHz
Sutter	795-796	12.50 kHz	803.968750 MHz	773.968750 MHz
Sutter	821-822	12.50 kHz	804.131250 MHz	774.131250 MHz
Sutter	871-872	12.50 kHz	804.443750 MHz	774.443750 MHz
Tehama	43-44	12.50 kHz	799.268750 MHz	769.268750 MHz

Tehama	121-124	25.00 kHz	799.762500 MHz	769.762500 MHz
Tehama	161-164	25.00 kHz	800.012500 MHz	770.012500 MHz
Tehama	281-284	25.00 kHz	800.762500 MHz	770.762500 MHz
Tehama	321-322	12.50 kHz	801.006250 MHz	771.006250 MHz
Tehama	365-368	25.00 kHz	801.287500 MHz	771.287500 MHz
Tehama	443-444	12.50 kHz	801.768750 MHz	771.768750 MHz
Tehama	509-512	25.00 kHz	802.187500 MHz	772.187500 MHz
Tehama	549-552	25.00 kHz	802.437500 MHz	772.437500 MHz
Tehama	613-616	25.00 kHz	802.837500 MHz	772.837500 MHz
Tehama	837-838	12.50 kHz	804.231250 MHz	774.231250 MHz
Tehama	917-920	25.00 kHz	804.737500 MHz	774.737500 MHz
Trinity	53-54	12.50 kHz	799.331250 MHz	769.331250 MHz
Trinity	85-88	25.00 kHz	799.537500 MHz	769.537500 MHz
Trinity	131-132	12.50 kHz	799.818750 MHz	769.818750 MHz
Trinity	345-348	25.00 kHz	801.162500 MHz	771.162500 MHz
Trinity	453-454	12.50 kHz	801.831250 MHz	771.831250 MHz
Trinity	521-524	25.00 kHz	802.262500 MHz	772.262500 MHz
Trinity	569-572	25.00 kHz	802.562500 MHz	772.562500 MHz
Trinity	909-910	12.50 kHz	804.681250 MHz	774.681250 MHz
Trinity	913-914	12.50 kHz	804.706250 MHz	774.706250 MHz
Tulare	45-48	25.00 kHz	799.287500 MHz	769.287500 MHz
Tulare	129-130	12.50 kHz	799.806250 MHz	769.806250 MHz
Tulare	171-172	12.50 kHz	800.068750 MHz	770.068750 MHz
Tulare	173-174	12.50 kHz	800.081250 MHz	770.081250 MHz
Tulare	209-210	12.50 kHz	800.306250 MHz	770.306250 MHz
Tulare	257-258	12.50 kHz	800.606250 MHz	770.606250 MHz
Tulare	289-292	25.00 kHz	800.812500 MHz	770.812500 MHz
Tulare	329-332	25.00 kHz	801.062500 MHz	771.062500 MHz
Tulare	355-356	12.50 kHz	801.218750 MHz	771.218750 MHz
Tulare	359-360	12.50 kHz	801.243750 MHz	771.243750 MHz
Tulare	365-366	12.50 kHz	801.281250 MHz	771.281250 MHz
Tulare	371-372	12.50 kHz	801.318750 MHz	771.318750 MHz



Tulare	377-380	25.00 kHz	801.362500 MHz	771.362500 MHz
Tulare	425-428	25.00 kHz	801.662500 MHz	771.662500 MHz
Tulare	431-432	12.50 kHz	801.693750 MHz	771.693750 MHz
Tulare	465-468	25.00 kHz	801.912500 MHz	771.912500 MHz
Tulare	485-486	12.50 kHz	802.031250 MHz	772.031250 MHz
Tulare	489-490	12.50 kHz	802.056250 MHz	772.056250 MHz
Tulare	521-524	25.00 kHz	802.262500 MHz	772.262500 MHz
Tulare	549-550	12.50 kHz	802.431250 MHz	772.431250 MHz
Tulare	561-564	25.00 kHz	802.512500 MHz	772.512500 MHz
Tulare	601-604	25.00 kHz	802.762500 MHz	772.762500 MHz
Tulare	705-708	25.00 kHz	803.412500 MHz	773.412500 MHz
Tulare	791-792	12.50 kHz	803.943750 MHz	773.943750 MHz
Tulare	797-798	12.50 kHz	803.981250 MHz	773.981250 MHz
Tulare	825-828	25.00 kHz	804.162500 MHz	774.162500 MHz
Tulare	829-830	12.50 kHz	804.181250 MHz	774.181250 MHz
Tulare	865-866	12.50 kHz	804.406250 MHz	774.406250 MHz
Tuolumne	161-164	25.00 kHz	800.012500 MHz	770.012500 MHz
Tuolumne	201-204	25.00 kHz	800.262500 MHz	770.262500 MHz
Tuolumne	353-356	25.00 kHz	801.212500 MHz	771.212500 MHz
Tuolumne	429-432	25.00 kHz	801.687500 MHz	771.687500 MHz
Tuolumne	527-528	12.50 kHz	802.293750 MHz	772.293750 MHz
Tuolumne	573-576	25.00 kHz	802.587500 MHz	772.587500 MHz
Tuolumne	789-792	25.00 kHz	803.937500 MHz	773.937500 MHz
Tuolumne	869-872	25.00 kHz	804.437500 MHz	774.437500 MHz
Yolo	371-372	12.50 kHz	801.318750 MHz	771.318750 MHz
Yolo	383-384	12.50 kHz	801.393750 MHz	771.393750 MHz
Yolo	395-396	12.50 kHz	801.468750 MHz	771.468750 MHz
Yolo	407-408	12.50 kHz	801.543750 MHz	771.543750 MHz
Yolo	419-420	12.50 kHz	801.618750 MHz	771.618750 MHz
Yolo	431-432	12.50 kHz	801.693750 MHz	771.693750 MHz
Yolo	443-444	12.50 kHz	801.768750 MHz	771.768750 MHz
Yolo	455-456	12.50 kHz	801.843750 MHz	771.843750 MHz

Yolo	467-468	12.50 kHz	801.918750 MHz	771.918750 MHz
Yolo	479-480	12.50 kHz	801.993750 MHz	771.993750 MHz
Yolo	491-492	12.50 kHz	802.068750 MHz	772.068750 MHz
Yolo	503-504	12.50 kHz	802.143750 MHz	772.143750 MHz
Yolo	565-566	12.50 kHz	802.531250 MHz	772.531250 MHz
Yolo	589-590	12.50 kHz	802.681250 MHz	772.681250 MHz
Yolo	597-598	12.50 kHz	802.731250 MHz	772.731250 MHz
Yolo	601-602	12.50 kHz	802.756250 MHz	772.756250 MHz
Yolo	669-670	12.50 kHz	803.181250 MHz	773.181250 MHz
Yolo	833-834	12.50 kHz	804.206250 MHz	774.206250 MHz
Yolo	903-904	12.50 kHz	804.643750 MHz	774.643750 MHz
Yuba	45-48	25.00 kHz	799.287500 MHz	769.287500 MHz
Yuba	201-204	25.00 kHz	800.262500 MHz	770.262500 MHz
Yuba	285-288	25.00 kHz	800.787500 MHz	770.787500 MHz
Yuba	353-356	25.00 kHz	801.212500 MHz	771.212500 MHz
Yuba	465-466	12.50 kHz	801.906250 MHz	771.906250 MHz
Yuba	539-540	12.50 kHz	802.368750 MHz	772.368750 MHz
Yuba	555-556	12.50 kHz	802.468750 MHz	772.468750 MHz
Yuba	595-596	12.50 kHz	802.718750 MHz	772.718750 MHz
Yuba	637-638	12.50 kHz	802.981250 MHz	772.981250 MHz
Yuba	743-744	12.50 kHz	803.643750 MHz	773.643750 MHz
Yuba	831-832	12.50 kHz	804.193750 MHz	774.193750 MHz

**Attachment B - ByLaws**

**BYLAWS**

of the

**PUBLIC SAFETY REGION SIX 700 MHz/4.9 GHz REGIONAL PLANNING  
COMMITTEE**

**February 10, 2004**

**ARTICLE I**

**NAME, GEOGRAPHIC AREA, and PURPOSE, and STRUCTURE**

- 1.1 NAME: The name of this organization shall be the Public Safety Region Six 700 MHz/4.9 GHz Regional Planning Committee. The short name of the organization shall be the Region 6 RPC.
- 1.2 GEOGRAPHIC AREA: Region 6 is one of 55 public safety communications planning regions established by the Federal Communications Commission (FCC) to develop spectrum utilizations plans for the United States and its possessions. Region 6 covers the 48 counties of California situated north of the southernmost borders of Monterey, Kings, Tulare, and Inyo counties.
- 1.3 1.3 PURPOSE: The purpose of the Region 6 RPC is to fulfill the requirements established by the FCC in Title 47 of the Code of Federal Regulations for public safety communications users to obtain access to wireless spectrum ("public safety bands") subject to the FCC's public safety planning process. The Region 6 RPC achieves this purpose by fostering cooperation between potential users, development and maintenance of regional spectrum utilization plans, and the implementation of these plans within the Public Safety Region 6 area.

- 1.4 **STRUCTURE:** To accomplish the planning purposes stated in Section 1.3, the Region 6 RPC will establish standing subcommittees and working groups to address specific public safety bands, as chartered by the FCC. The composition of any maintenance subcommittee or working group established pursuant to a FCC planning charter will be delineated in the subject band's planning document.

## **ARTICLE II**

### **MEMBERS**

For purposes of this Article, the term "member," unless otherwise specified, refers to both voting and non-voting members.

- 2.1 **MEMBER CLASSES AND QUALIFICATIONS:** The Region 6 RPC shall have two classes of members, "voting members" and "non-voting members." New members may be added at a duly noticed annual or special meeting by a simple majority vote of current members present. Any special meetings must be advertised to the public 30 days in advance of said meeting.

- 2.1.1 **VOTING MEMBERS:** For each regional spectrum planning/frequency coordination committee established for each of the Plans submitted to the FCC for the 4.9GHz, 700MHz, and 800MHz public safety/ public service bands voting members shall consist of one representative per category (e.g., police - city, fire - county, OES, EMS, highway maintenance). Voting members must be representatives from a public agency engaged in the provision of public safety/public services within the Region 6 geographic area and eligible to hold a license under 47 CFR 90.20, 47 CFR 90.523, 47 CFR 90.1203, or 47 CFR 2.103. A single agency shall be

allowed no more than one vote for each distinct eligibility category (e.g., police, fire, EMS, highway maintenance) within the agency's organization or political jurisdiction. The State of California shall have no more than four voting members. In voting on any issue, the members must identify themselves, and the agency and eligibility category, which they represent.

- 2.1.2 NON-VOTING MEMBERS: Non-voting members are all others interested in furthering the goals of public safety services communications.
- 2.2 TENURE: In general, each member shall hold membership from the date of acceptance until resignation or removal.
- 2.3 POWERS AND RIGHTS: In addition to such powers and rights as are vested in them by law, or by these bylaws, the members shall have such other powers and rights as the membership may determine by majority vote.
- 2.4 SUSPENSION AND REMOVAL: A voting member may be suspended or removed with cause by a two-thirds vote of the voting members after reasonable notice and opportunity to be heard. Failure to attend three consecutive meetings or 50 percent of formal meetings held in a calendar year shall be a specific cause for removal from the membership.
- 2.5 RESIGNATION: A member may resign by delivering written resignation to the chair, vice-chair, treasurer, or secretary of the Region 6 RPC or to a meeting of the members. Those voting members who resign may be replaced by the appointing agency until the annual meeting by submitting a signed memo to the chair. Advance notice of an impending resignation is encouraged.

### **ARTICLE III MEETINGS**

- 3.1 **ANNUAL MEETING:** The annual meeting of the membership shall be held at a publicly accessible location within Region 6 during the first quarter of each year. If an annual meeting is not held as herein provided, a special meeting of the members may be held in addition to the annual meeting with the same force and effect as the annual meeting. In such cases, all references in these bylaws, except in this section (3.1), to the annual meeting of the members shall be deemed to refer to such special meeting. Any such special meeting shall be called and notice shall be given as provided in Section 3.4.
- 3.2 **SPECIAL MEETINGS:** Special meetings of the membership may be held at any time and at any place within Region 6, or in any of the contiguous regions if the purpose of the meeting is a joint meeting with that region. Special meeting of the members may be called by the chair or by the vice-chair, or in case of death, absence, or incapacity, by any other officer, or upon written application of three or more members. Any such special meeting shall be called and notice shall be given as provided in Section 3.4.
- 3.3 **WORKING MEETINGS:** Meetings of subcommittees or working groups of the Region 6 RPC are considered working meetings and may be conducted in person or by electronic means. Working meetings are not subject to the notice provisions of Section 3.4. Minutes of working meetings shall be filed with the secretary and made available for review by any member of the Region 6 RPC.

No vote may be taken at working meetings. Such notice may include, but not be limited to, website postings.

- 3.4 NOTICE OF MEETINGS: Notice of the time and place of annual and special meetings of the Region 6 RPC shall be provided to each member and to the public not less than 60 days in advance of the date of the meeting. Except as otherwise expressly provided, it shall be reasonable and sufficient notice to members to send notice by mail, addressed to such members at their usual or last known business address; by e-mail/facsimile; in person; or by telephone. Notice of each annual and special meeting shall also be provided to the Wireless Technology Branch (or successor unit) of the FCC; placed on any electronic information distribution sources used by the Region 6 RPC, and distributed to any or all professional organizations designated by the officers or membership of the Region 6 RPC.
- 3.5 QUORUM: At any meeting of the members, a majority of the officers and 50 percent plus one of the voting members shall constitute a quorum. Any meeting may be adjourned to such date or dates not more than 90 days after the first session of the meeting by a majority of the votes cast upon the question, whether or not a quorum is present, and the meeting may be held as adjourned without further notice.
- 3.6 ACTION BY VOTE: Each voting member representing a particular category of public safety services (e.g., fire, law enforcement, medical) shall have one vote; non-voting members have no right to vote as per Section 2.1. When a quorum is present at any meeting, a majority of the votes properly cast by voting members present shall decide any question, including election to any office, unless otherwise provided by law or these bylaws.

- 3.7 ACTION BY WRITING: Any action required or permitted to be taken at any meeting of the members may be taken without a meeting if two thirds of the members entitled to vote on the matter consent to the action in writing and the written consents are filed with the records of the meetings of the members. Such consents shall be treated for all purposes as a vote at a meeting.
- 3.8 PROXIES: Voting members may vote either in person or by written proxy dated not more than one month before the meeting named therein. Such proxies shall be filed with the secretary or other person responsible for recording the proceedings of the meeting. Unless otherwise specifically limited by their terms, such proxies shall entitle the holders thereof to vote at the meeting by the proxy. Proxies shall terminate after the final adjournment of such meeting. Voting by written proxy at a meeting shall not be considered the same as attending the meeting to satisfy the requirements of Section 2.4.
- 3.9 VOTING ON ONE'S OWN APPLICATION: At no time can voting members vote on their own applications.
- 3.10 SPECIAL INTEREST VOTING: Voting members cannot have a commercial interest in telecommunications in any of their regions, and/or adjacent regions', application(s) which they are reviewing, approving and/or voting on.

## **ARTICLE IV**

### **OFFICERS AND AGENTS**

- 4.1 NUMBER AND QUALIFICATION: The officers of the Region 6 RPC shall be consist of a chair, vice chair, treasurer, secretary, and such other



officers, if any, as the voting members may determine. With the exception of the secretary, all officers must be voting members of the Region 6 RPC. The chair and vice chair shall not be employed by the same agency.

- 4.2 ELECTION: The officers shall be elected by the voting members at the first meeting. At the first annual meeting of the members after these bylaws have been adopted, the vice chair and the secretary shall be elected for a term of two years. At the second annual meeting of the members, the chair and the treasurer shall be elected for a term of two years. Thereafter, at the annual meeting of the members, the vice chair and the secretary, or the chair and the treasurer, shall be elected on alternating years.
- 4.3 TENURE: The officers shall each hold office until the annual meeting of the members in which the term of their office expires and elections are held, or until their successors, if any, are chosen, or in any case until they die, resign, are removed or become disqualified.
- 4.4 CHAIR AND VICE CHAIR: The chair shall be the chief executive officer of the RPC and, subject to the control of the voting members, shall have general charge and supervision of the affairs of the Region 6 RPC. The chair shall preside at all meetings of the Region 6 RPC. The vice chair, if any, shall have such duties and powers as the voting members shall determine. The vice chair shall have and may exercise all the powers and duties of the chair during the absence of the chair or in the event of his or her inability to act.
- 4.5 TREASURER: The treasurer shall be the chief financial officer and the chief accounting officer of the Region 6 RPC. The treasurer shall be in charge of its financial affairs, funds, and valuable papers and shall keep full and accurate records thereof.

- 4.6 SECRETARY: The secretary shall record and maintain records of all proceedings of the members in a file or series of files kept for that purpose. Such file or files shall be kept within the region and shall be open at all reasonable times to the inspection of any member. Such file or files shall also contain records of all meetings and the original, or attested copies, of bylaws and names of all members and the address of each (including e-mail addresses, if available). If the secretary is absent from any meeting of members, a temporary secretary chosen at the meeting shall exercise the duties of the secretary at the meeting.
- 4.7 COMBINED POSITION: A single individual may hold the positions of treasurer and secretary, but the terms of the positions will not be combined.
- 4.8 SUSPENSION OR REMOVAL: An officer may be suspended or removed from office with cause by a two-thirds vote of the voting members.
- 4.9 RESIGNATION: An officer may resign by delivering a written resignation to the chair, vice chair, treasurer, or secretary of the Region 6 RPC. Such resignation shall be effective upon receipt (unless specified to be effective at some other time), and acceptance thereof shall not be necessary to make it effective unless it so states.
- 4.10 VACANCIES: If any office becomes vacant, the voting members shall elect a successor. The successor shall hold office for the remainder of the term and in the case of the chair, vice chair, treasurer, and secretary until a successor is elected and qualified, or in each case until the successor, resigns, is removed, or is disqualified.

## **ARTICLE V AMENDMENTS**

- 5.1 METHOD OF MODIFICATION: These bylaws may be altered, amended, or repealed in whole or in part by vote. The voting members may, by a two-thirds vote, alter, amend, or repeal any of the bylaws adopted by the Region 6 RPC members or otherwise adopt, alter, amend, or repeal any provision that requires action by the voting members, per FCC regulations or these bylaws.

## **ARTICLE VI DISSOLUTION**

- 6.1 DISSOLUTION: This Regional Planning Committee may be dissolved by the consent of two thirds plus one of the members in good standing at a special meeting called for such purpose. The FCC shall be notified in writing by the chair or, in the chair's absence, the vice chair.

## **ARTICLE VII RULES OF PROCEDURES**

- 7.1 GOVERNANCE OF MEETINGS: The conduct of Region 6 RPC meetings, including, without limitation, debate and voting, shall be governed by the most current edition of *Robert's Rules of Order*.

**Attachment C**

**700MHz RPC, REGION 6**  
Frequency Advisory Subcommittee

<b>Committee Chair</b>	<b>Committee Vice-Chair</b>	<b>Committee Secretary / Treasurer</b>
<b>Law Enforcement</b> <i>May be appointed by the California Police Chiefs Association</i>	<b>Law Enforcement</b>	<b>Emergency Services</b>
<b>Fire</b> <i>May be appointed by the California Fire Chiefs Association</i>	<b>Fire</b>	<b>EMS / Public Health</b>
<b>General Government, Local</b>	<b>General Government, State</b>	<b>Region 6, 700MHz RPC, Frequency Advisor</b>
<b>Special District</b>	<b>At Large</b>	<b>At Large</b>

## Attachment D

### Region 6 700 MHz RPC Membership Roster and Meeting Attendance Records (Truncated list of meeting dates)

Attendees	Email Address	Phone #	5/16/02 – First RPC Meeting	10/03/02 – Second RPC Meeting	4/14/03 – Third RPC Meeting	10/29/03 – Fourth 700 MHz RPC Mtg.	3/11/04 – Fifth 700 MHz RPC Meeting	7/15/04 – Sixth 700 MHz RPC Meeting	4/21/05 – Seventh 700 MHz RPC Meeting	8/22/06 – Eighth 700 MHz RPC Meeting	4/10/07 – Ninth 700 MHz RPC Meeting	9/10/07 – Tenth 700 MHz RPC Meeting	2/28/08 – Eleventh 700 MHz RPC Meeting	9/30/08 – Twelfth 700 MHz RPC Meeting
Akbari, Jason	<a href="mailto:jason_akbari@dot.ca.gov">jason_akbari@dot.ca.gov</a>	(916) 654-6661					X	X						
Alga, Gene	<a href="mailto:galga@co.alameda.ca.us">galga@co.alameda.ca.us</a>	(510) 667-7791			X									
Allison, Ron	<a href="mailto:rnlallsn@aol.com">rnlallsn@aol.com</a>	(916) 599-1234	X						X					
Anderson, Jason	<a href="mailto:janderson@pacethop.com">janderson@pacethop.com</a>	(650) 292-5008							X					
Anderson, Mark	<a href="mailto:mark.anderson@911.sccgov.org">mark.anderson@911.sccgov.org</a>	(408) 892-0178												X
Andrews, Scott	<a href="mailto:sandrews@cityofsacramento.org">sandrews@cityofsacramento.org</a>	(916) 808-7327										X	X	X
Avara, Karen	<a href="mailto:kavara@yccesa.org">kavara@yccesa.org</a>	(530) 666-8905									X	X		
Azevedo, Angela	<a href="mailto:angela.azevedo@cdcr.ca.gov">angela.azevedo@cdcr.ca.gov</a>	(916) 324-0588	X				X	X		X	X	X		
Baker, Chris	<a href="mailto:cbaker@roseville.ca.us">cbaker@roseville.ca.us</a>	(916) 847-8480				X	X							
Barush, Roy	<a href="mailto:rbarush@co.napa.ca.us">rbarush@co.napa.ca.us</a>	(707) 299-1301						X	X					
Betts, Terry	<a href="mailto:tbett@so.cccounty.us">tbett@so.cccounty.us</a>	(925) 313-2453	X	X		X					X	X	X	X
Biancalana, Carol	<a href="mailto:cbiancal@emsa.ca.gov">cbiancal@emsa.ca.gov</a>	(916) 322-4336	X	X										
Blau, Jeff	<a href="mailto:jeff.blau@motorola.com">jeff.blau@motorola.com</a>	(925) 484-3002		X										
Breen, Mathew	<a href="mailto:mathew.breen@newark.org">mathew.breen@newark.org</a>	(510) 790-7587						X	X					

Brown, Matt	<a href="mailto:mbrown@tallycom.com">mbrown@tallycom.com</a>	(510) 783-2111				X								
Bruinzeel, Jasper	<a href="mailto:jasper@celplan.com">jasper@celplan.com</a>	(703) 259-4020					X							
Bryant, Doris	<a href="mailto:dryant@co.aameda.ca.us">dryant@co.aameda.ca.us</a>	(510) 208-9789		X										
Buchanan, David	<a href="mailto:david.buchanan@bearingpoint.com">david.buchanan@bearingpoint.com</a>	(909) 862-1522				X								
Byard, Chuck	<a href="mailto:Byard@ci.redding.ca.us">Byard@ci.redding.ca.us</a>	(530) 949 1560			X									
Calzada, Desi	<a href="mailto:desi.calzada@hayward-ca.gov">desi.calzada@hayward-ca.gov</a>	(510) 293-7181						X						
Cardno, Ross	<a href="mailto:rcardno@solanocounty.com">rcardno@solanocounty.com</a>	(707) 784-7917								X	X		X	
Cassani, Tom	<a href="mailto:cassani@ci.walnut-creek.ca.us">cassani@ci.walnut-creek.ca.us</a>	(925) 256-3597							X					
Castillo, Al	<a href="mailto:alcastillo@chp.ca.gov">alcastillo@chp.ca.gov</a>	(916) 375-2920								X				
Chappelle, Ken	<a href="mailto:kenny.chappelle@corr.ca.us">kenny.chappelle@corr.ca.us</a>	(916) 445-6203						X						
Chuck, Richard	<a href="mailto:rchuck@co.marin.ca.us">rchuck@co.marin.ca.us</a>	(415) 602-2041								X	X			
Coates, James	<a href="mailto:jim.coates@911.sccgov.org">jim.coates@911.sccgov.org</a>	(408) 977-3210					X		X					X
Conde, Kevin	<a href="mailto:kconde@marysville.ca.us">kconde@marysville.ca.us</a>	(530) 822-2940												
Conley, Wayne	<a href="mailto:wayne.conley@acgov.org">wayne.conley@acgov.org</a>	(510) 667-7788												X
Cook, Mary	<a href="mailto:mcook@dfg.ca.gov">mcook@dfg.ca.gov</a>	(916) 274-6332						X	X	X	X	X		
Crawford, Criss	<a href="mailto:criss_crawford@amr-ems.com">criss_crawford@amr-ems.com</a>	(209) 567-4027			X									
Cruise, David	<a href="mailto:dcruise@goldengate.org">dcruise@goldengate.org</a>											X	X	X
Cullen, Charles	<a href="mailto:Charles.cullen@cityofpaloalto.org">Charles.cullen@cityofpaloalto.org</a>	(650) 329-2331									X	X		
Cummings, Corey	<a href="mailto:corey.cummings@corr.ca.gov">corey.cummings@corr.ca.gov</a>	(916) 324-2691		X		X								
De Camp, Bill	<a href="mailto:william.decamp@dgs.ca.gov">william.decamp@dgs.ca.gov</a>	(916) 657-9205	X	X	X	X	X	X	X	X				
Dedo, John	<a href="mailto:jdedo@cican-usa.org">jdedo@cican-usa.org</a>	(916) 599-2622								X				
Dilallo, Mike	<a href="mailto:Mike.dilallo@flysfo.com">Mike.dilallo@flysfo.com</a>	(650) 821-3640									X	X		
Divine, Steve	<a href="mailto:steve.devine@bearingpoint.com">steve.devine@bearingpoint.com</a>	(573) 634-3446				X						X	X	X
Doble, Mike	<a href="mailto:mdoble@comcast.net">mdoble@comcast.net</a>	(925) 735-9848				X	X	X		X				

Dupre, Steve	<a href="mailto:sdupre@co.sanmateo.ca.us">sdupre@co.sanmateo.ca.us</a>	(650) 363-4443					X		X	X	X	X	X	X
Eierman, Dave	<a href="mailto:david.eierman@motorola.com">david.eierman@motorola.com</a>	(410) 712-6242				X								
Einhorn, Paul	<a href="mailto:peinhorn@metromobile.com">peinhorn@metromobile.com</a>	(650) 996-6050									X	X		
Eldridge, Kent	<a href="mailto:eldridgek@saccounty.net">eldridgek@saccounty.net</a>	(916) 875-6438	X	X	X	X	X		X	X	X	X	X	X
Elwell, Dennis	<a href="mailto:dennis.elwell@dgs.ca.gov">dennis.elwell@dgs.ca.gov</a>	(916) 657-9459				X								
Engstrom, Harry	<a href="mailto:henstrom@co.alameda.ca.us">henstrom@co.alameda.ca.us</a>	(510) 667-7788		X										
Fernandez, Janet	<a href="mailto:janet.fernandez@motorola.com">janet.fernandez@motorola.com</a>	(415) 706-0649						X						
Finster, Brent	<a href="mailto:bfins@cccfd.org">bfins@cccfd.org</a>	(925) 930-5550	X	X		X					X	X		
Fleshma, Charles	<a href="mailto:cfleshma@sonoma-county.org">cfleshma@sonoma-county.org</a>	(707) 568-2976							X		X	X	X	X
Fong, Jianmin	<a href="mailto:jianmin.fong@sfmta.com">jianmin.fong@sfmta.com</a>	(415) 701-5208												X
Forrest, Greg	<a href="mailto:gforrest@macro.com">gforrest@macro.com</a>	(925) 210-1500						X			X	X		
Fox, John	<a href="mailto:jfox@police.uscf.edu">jfox@police.uscf.edu</a>	(415) 476-9240												
French, Dave	<a href="mailto:david.french@sfgov.org">david.french@sfgov.org</a>	(415) 285-1486								X				
Funk, Dave	<a href="mailto:dafunk@du.edu">dafunk@du.edu</a>	(303) 871-2439				X								
Geddes, Michelle	<a href="mailto:Michelle.Geddes@sfgov.org">Michelle.Geddes@sfgov.org</a>	(415) 518-8126										X	X	X
Gibbons, Patricia	<a href="mailto:patricia.gibbons@ci.sj.ca.us">patricia.gibbons@ci.sj.ca.us</a>	(408) 277-4082	X	X	X									
Gilmore, LeAnn	<a href="mailto:lgilmore@chp.ca.gov">lgilmore@chp.ca.gov</a>	(916) 375-2912										X		
Goebel, Jim	<a href="mailto:ecd.goebel@sfgov.org">ecd.goebel@sfgov.org</a>	(415) 558-3856							X		X	X		
Goode, Charles	<a href="mailto:cgoode@police.ucsf.edu">cgoode@police.ucsf.edu</a>	(415) 476-0620					X	X		X				
Grace, Jeff	<a href="mailto:jeff.grace@motorola.com">jeff.grace@motorola.com</a>	(650) 591-3680						X	X	X				
Graillat, Chris	<a href="mailto:cgraillat@emsa.ca.gov">cgraillat@emsa.ca.gov</a>	(916) 322-4336			X		X							
Graves, Tim	<a href="mailto:tim.graves@dgs.ca.gov">tim.graves@dgs.ca.gov</a>	(916) 657-9260						X	X	X	X	X	X	X
Gray, Tom	<a href="mailto:Tom.gray@rcc.com">Tom.gray@rcc.com</a>	(909) 239-9642								X				
Grootveld, Gary	<a href="mailto:gary.grootveld@dgs.ca.gov">gary.grootveld@dgs.ca.gov</a>	(916) 657-9381												

Grudnitsis, Pablo	<a href="mailto:pablo@packethop.com">pablo@packethop.com</a>	(650) 292-9911												
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## **Attachment E**

# **Official Meeting - Announcements / Agendas / Minutes**

## **First Organizational Meeting**

### **MINUTES**

### **FIRST ORGANIZATIONAL MEETING**

#### **700 MHz Regional Planning Committee for Northern California January 28, 1999**

Alameda County Emergency Operations Center, Dublin, CA See list of attendees attached.

1. Assembly was called to order by Don Root, Governor's Office of Emergency Services, at 1000 hours. A volunteer to take minutes was solicited. Self introductions were then undertaken.
2. Those present were asked to sign an attendance sheet so a permanent record would be available to evidence this assembly.
3. Root then indicated that the purpose of this meeting, under the charge of the FCC, was to informally establish the framework of a committee that would subsequently meet under more formal circumstances to plan the utilization of the new channels allocated to the public-safety community by the Commission.
4. McDole was asked to provide a brief background concerning the FCC program to adopt usage of the 700 MHz band by public-safety. McDole reviewed the FCC R&R covering the topic. He indicated there was a charge by the R&Rs to convene and conduct a meeting to decide the structure and composition of a committee that would prepare a utilization plan for these new frequencies. He indicated that there was latitude within the R&Rs to adopt the existing NPSPAC Regional Planning Committee structure and composition, or to establish a wholly new structure and committee. An alternative was offered within the NPRM to allocate an additional 8.8 MHz of spectrum for separate administration by each state. Reply comments reflected that no state favored this proposal. McDole continued to indicate a few flaws within the R&R and NPRM. One such was the charge to establish a separate digital standard for adoption within this new spectrum. It was the posture of APCO that such was totally redundant and unnecessary as there already had been adopted, by appropriate standards groups, a digital standard: Project 25. He noted that Project 25 had taken a decade to achieve and that to impose another new standard could possibly delay the use of the new spectrum for at least a decade.

It was noted that the Commission adopted the new spectrum utilizing channeling of 6.25 kHz. The R&Rs will require narrow-band technology and digital modulation processes. The new spectrum plan also allocates a number of wide-band data channels. McDole indicated that a Petition for Reconsideration has been filed by several persons to revisit some of the above issues.

It was noted that one of the strongest worded reply comments had been offered by the City and County of San Francisco. Several points brought forward in their filings

posed a controversy and there is a need for further discussion and clarification. The representative from San Francisco attending this organizational meeting was not in a position to discuss these points.

A National Coordination Committee was instituted with in the R&Rs newly set down. This Committee's charge is to oversee the conduction of meetings throughout the country similar to the one we are holding

this day. While the committee was established by the R&Rs, the legislation established only the framework for the committee, and its' oversight powers were somewhat unclear.

An attendee requested information concerning the notice of this meeting. The response was that the meeting was duly announced at several APCO chapter meetings and was included within the chapter's monthly meeting notice. In addition, it was indicated that several other frequency coordination representatives were sent personal messages or were telephoned. McDole added that he had specifically asked John Clark, FCC, if there were any legal requirements imposed by the Commission such as placing this meeting on Public Notice. John indicated that this meeting was strictly organizational and such notice was not required.

The composition and structure of the current NPSPAC Region 5 plan were reviewed by McDole and Root. Nash suggested that subsequent meetings of this planning body be noticed to various other general governmental associations such as the League of California Cities, California Chief's of Police, California Fire Chief's Association, County Supervisor's Association, and so forth, to solicit their input and to perhaps furnish the names of those technically qualified to be appointed as members of this planning body. It was commented that the current NPSPAC structure was predominated by APCO membership and that the NPSPAC meetings were held in association with APCO chapter meetings. A comment was also presented that while the meetings were held in association with Northern APCO chapter meetings, that many APCO members also held membership in IMSA, FCCA and AASHTO, and that none of these organizations held local meetings.

A review of 47CFR90.527, Regional Plan Requirements, Common Elements (a), was undertaken item by item as follows:

2) Summary of major elements. Considered as premature for this point in time. See comments above concerning possible expansion of membership.

3) How the spectrum would be allocated. Open discussion followed on this topic. It was felt that it would be a very difficult task to allocate the over 1800 channels to specific areas, as was done with the NPSPAC plan, as spectral needs are anticipated to be dynamic. The majority of the users indicated the new spectrum would initially be populated with high-speed data systems. To

make an artificial demarcation point between voice and data allocations would be totally inappropriate. It was also stated that data transfer standards must be established early on to permit the greatest degree of interoperability; that consolidated data systems would become an essential key to successfully establishing new systems. This organizational committee recognized the need to establish several working groups to discuss such areas as wide-band data.

4) Assignment of priorities in unmet needs situations. Viewed as unlikely, but the matter could be discussed and a position adopted at a subsequent meeting.

5) Plan coordination with adjacent areas. A procedural issue that is easily accommodated.

6) Maximum use issues. These issues appear to have been already addressed with in the NPSPAC Plan. Such will be given consideration and were deferred to a subsequent meeting.

7) Review and Revisions. It was hoped that a mechanism could be established to minimize any direct approval processes imposed by the Commission for every minor change in any adopted plan. Such has been found in the past to take a year or better to accomplish.

5. Determine if NPSPAC Region 6 area is appropriate for new committee area. It was moved by Powell, seconded by Beaumont, to retain the current area encompassed by NPSPAC Region 6 for the new committee area. Discussion ensued. Question by Ensminger: Has this topic been discussed with Region 5? McDole/Root responded that Region 5 had yet to meet as we have today and could not officially respond. It was informally expressed that Region 5 desired to retain their current area (the 10 southern counties).

Ensminger responded that the state has a concern for statewide users and to see that those needs are clearly accommodated uniformly in both Regions.

Wide band (NB high speed data and video) was discussed as having some mutual impact in both Regions. Powell recommended that this need be sent to Region 5 for discussion. Costa responded that the current requirements in both Regional plans (5 & 6) provided for such mutual concerns. Powell provided some insight on uses of wide-band systems in Europe, but those were undertaken in higher spectrum.

Root then restated the motion on the floor under discussion. "Shall we retain existing Region 6 NPSPAC area of authority, procedures, interoperability standards and composition?" Root pointed out that Kern and San Luis Obispo counties are

south of the existing line, yet they have more impact to the northern areas than they do to the southern areas. Should they not be brought to the north and away from Region 5? Nash offered that we might approach those counties in the area north of the Tehachapi Mountain Range to see if they feel their interests would be better represented in Region 6 or not. The question was called: the motion carried unanimously.

How do we structure ourselves? Shall we adopt the Region 6 NPSPAC procedures and composition or form a new committee, or shall we expand or modify what is currently in place? Shall this be an interim position or shall it be considered formally in place? McDole offered that we have the specter of unknown and unwritten procedures resting in the National Coordinating Committee. We can't really make an informed decision, absent direction from that committee. Nash offered that the FCC has expressed the desire to retain all current geographical areas (Regions), but they are open to change. McDole asked how shall we go? Discussion ensued. Powell suggested that we keep the existing structure, but expand the composition to include federal representation. Beaumont offered that we should also include a state police representative in the composition as such appears to have been overlooked. McDole responded that we can add members (to the NPSPAC Plan) without going back to the Commission for approval. Root restated the consensus of the group at this point would be to retain the Region 6 composition and enhance it with representation from the federal side as well as a state police organization until there is better direction from the FCC. This was moved by Beaumont and seconded by Mitchell. Costa then opened discussion on the specific names within the composition of the Region 6 plan. Vacancies were identified (Obuch, Neilson and others). Betts opined that the composition was heavy in state representation. White offered that many persons currently named in the Region 6 plan were not now present and their names should not be committed to an expanded scope without their individual consent.

Root summarized the consensus as that we should proceed with the NPSPAC Region 6 format until better information is evident. Discussion from the floor included comments that perhaps we should expand the committee's composition to include such broad based relief groups as the American National Red Cross, Salvation Army or so forth. It was agreed that possession of minimum technical qualifications for committee membership was required. Beaumont asked if she would be included within that group as she did not possess a technical background.

Costa moved that the composition, procedures and requirements within the existing Region 6 plan be adopted with the addition of a federal representative and a state police representative. Item was discussed and fell due to the lack of a second.

Powell moved to adopt the proposal made by Costa only as an interim steering committee until a more formal structure can be established after receiving direction from the Commission: seconded by Costa. Beaumont commented that possibly we

should adopt those now present as the interim committee of the whole without associating our names with specific service representation as in the current plan. The question was called. A clarification was requested as to whether we were committing to a structure only or a structure with current names included? Nash challenged if this question was appropriately called. He noted that we had a minimal response to this meeting and that their interests may be narrowly interpreted as being APCO related. He observed that there has been a continuous ill feeling by others as to APCO's predominance in the NPSPAC processes; that a



broader representation group would be more appropriate. There is a need for greater outreach in this process. Further discussion occurred. The question being called a vote was taken and the motion failed.

Ensminger then spoke to the adoption of this body as a committee of the whole as an interim situation. Powell commented on problems in other Regions where the committee was heavily aligned to one specific service group to the exclusion of other service groups in channel allocations; we would wish to avoid this problem. Costa discussed the present NPSPAC structure as being validly representative of a wide representation group and encouraged reconsideration of his earlier motion. Root then stated he would entertain another motion from the floor to establish a shell structure again as an interim committee. He would also charge the committee to actively seek and solicit recommendations for technically qualified persons to sit on the newly formed committee. Moved by Zwber and seconded by Betts. Discussion as to the definition of "technically qualified" was undertaken. A more precise definition will be needed. Root then restated the motion as the commitment to seek out and work with other interest groups in the scope of the current NPSPAC Region 6 Plan, to expand the scope to include membership from (a) federal group and to add a state police representative; to solicit specific names of those qualified to fill those seats on the committee to form a new group. Motion carried with one nay (Betts).

8. Other from the floor. Powell focused on the wide band work group and interface to Project 25 standards. He indicated that the Project 25 group had partnered with a similar group functioning in Europe looking at standards for wide band data tasks. The objective would be to establish standards for use of the 150 kHz allocations in the U.S. plan. Powell reiterated earlier statements that the division between narrowband voice channels and wide-band data channels most assuredly should be a regional elective and not a national dictum. Consolidated data systems are an eventuality as insufficient wide-band spectrum will surely result. Currently the new rules for the 700 MHz band do not allow aggregation of more than four 6.25 kHz voice channels for implementation of a moderate speed data system. Focusing on the European group DAWS, they are much further ahead of us for wide-band data

systems. They are currently in trial mode with these new systems. Their systems are developing in the 3 GHz region with 200 MHz-wide channeling. Standards issues are currently before the IACP for comment. We must see to adoption of common data standards and interoperability or our plan will fail.

#### List of attendees

Name Agency Address

Bob Ensminger State of CA Telecom 601 Sequoia Pacific Blvd Sacramento CA  
Preston Thomson So Placer Fire Dist 6900 Eureka Road Granite Bay CA  
Ken Mitchell Ca Highway Patrol 860 Stillwater Av West Sacramento CA  
Harry Engstrom Co Alameda Comms 2000-150th Av Oakland CA  
Gary Grootveld State of CA Telecom 601 Sequoia Pacific Blvd Sacramento CA  
Bill De Camp State of CA Telecom 601 Sequoia Pacific Blvd Sacramento CA  
John Schmidt Ca Dept of Trans POB 942874 Sacramento CA 94274  
Diane Beaumont Ca Dept Parks&Rec 1416 9th St Sacramento CA  
Terry Betts Contra Costa Sheriff 827 Arnold Dr Martinez CA  
Len Zweber Ci of Santa Clara 1990 Walsh Av Santa Clara CA  
Greg Forrest Thatcher Associates 564 Market St San Francisco CA  
Steve Soto Ca Dept Parks&Rec 1416 9th St Sacramento CA  
Doris Bryant Co Alameda 1401 Lakeside Dr Oakland CA  
Gerry White Ci/Co San Francisco 901 Rankin St San Francisco CA  
Glen Nash State of CA Telecom 601 Sequoia Pacific Blvd Sacramento CA  
John Powell University of CA POB 4342 Berkeley CA 94704  
Ron Allison Co Sacramento 3208 Ramos Cir Sacramento CA  
Dale Klethermes Retired 1127 Vasquez Av Sunnyvale CA  
Jim Coats Co Santa Clara 2700 Carol Dr San Jose CA  
Don Root St CA OES 2800 Meadowview Rd Sacramento CA



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**DA 02-714**  
**March 27, 2002**

## **WIRELESS TELECOMMUNICATIONS BUREAU ACTION**

### **REGION 6 (NORTHERN CALIFORNIA) 700 MHz REGIONAL PLANNING COMMITTEE ANNOUNCES FIRST MEETING**

The Region 6 (Northern California) 700 MHz Public Safety Regional Planning Committee Convener announces that the initial meeting of Region 6 700 MHz Public Safety Regional Planning Committee will be held on May 16, 2002 at 10:00 a.m., at the Governor's Office of Emergency Services, 3650 Schriever Ave., Mather, California. The Northern California Region is composed of the 48 counties of California situated north of the northernmost borders of San Luis Obispo, Kern and San Bernardino counties.

The purposes of the meeting are to:

1. Review the status of the FCC rules for the 700 MHz band,
2. Review the work to date of the Public Safety National Coordination Committee,
3. Establish a Regional Planning Committee,
4. Elect a Chairperson,
5. Establish procedural rules,
6. Review plan elements, and
7. Form workgroups to develop the regional plan.

The Region 6 (Northern California) 700 MHz Public Safety Planning Committee meeting is open to the public. All eligible public safety providers whose sole purpose or principal purpose is to protect the safety of life, health, or property in Region 6 would utilize these frequencies. It is essential that not only public safety, but all government, Native American Tribal, and non-

governmental organizations eligible under Section 90.523 of the Commission's Rules be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate and represent your agency's needs.

All interested parties wishing to participate in the planning for the use of new public safety spectrum in the 700 MHz band are encouraged to attend. For further information about the meeting, please contact:

Donald Root, Convener  
Region 6, 700 Regional Planning Committee  
Governor's Office of Emergency Services  
Operations Support Branch - Telecommunications  
P. O. Box 419047  
Rancho Cordova, CA 95741-9047  
PH: 916-845-8601  
FX: 916-845-8606  
Email: Don\_Root@oes.ca.gov

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# **1<sup>st</sup> Official RPC Meeting**

## **(Second Organizational Meeting)**

### **Minutes**

#### **700 MHz Planning Meeting**

**May 16, 2002**

**Sacramento, CA – OES Headquarters**

Mr. Don Root convened the second organizational meeting of the Region 6 - 700 MHz Regional Planning Committee at 1013 hours. A few welcoming remarks were offered and an agenda was shown for the day's events.

Mr. Tom Warden from the California Governor's Office of Emergency Services (OES) was introduced and offered some additional welcoming words acquainting the assembly with the new California OES headquarters facilities. He also briefly reviewed the position of OES in aiding any and all efforts involving communications planning activities.

Mr. Root again took the meeting and announced that Mr. Preston Thomson would be acting as Secretary pro-tem for this meeting and thanked him for his past services in this capacity. The minutes of the first organizational meeting were circulated and acknowledged.

Mr. Root reviewed the purpose of this meeting and what has gone on before in 700 MHz planning in Northern California:

- As part of the 700 MHz allocation process, the Federal Communications Commission has required that local governmental agencies should meet and form a Regional Planning Committee (RPC) representative of all eligible users in the area. The Committee is charged with establishing a process to equitably allocate radio channels in this spectrum for use by all.
- He pointed out a map depicting the areas of California not impacted by incumbent television broadcasters. This spectrum is available for use today in a small portion of this state, while incumbent television broadcasters currently impact the major population centers. These stations are anticipated to vacate TV channels 60-69 by the end of December 2006. He further noted that this date is not firm and subject to further Commission action.
- Mr. Root made reference to a map of the United States showing the Regions generally recognized by the Commission within the National Public-Safety Planning Action Committee (NPSPAC) processes. The Rules permit a Region to change their boundaries or retain the existing 800 MHz planning boundaries. *In the first organizational meeting of this Committee, it was agreed that no changes to the boundaries need be made.*
- The 700 MHz service Rules were enacted in 1998, and Regional planning efforts have been underway in several areas of the country since that date. It was remarked that Region 5, which includes the 10 southern-most counties of this state has recently completed its initial planning activities and is ready to submit its Plan for Commission approval.
- The service rules also compelled the Regions to establish their RPC's separately from the present NPSPAC planning bodies to fully assure the greatest degree of diversity in this effort.
- Mr. Root noted that the RPC's were provided a set of organizational templates by the National Coordinating Committee (NCC, a federally hosted group) in order to expedite the organization of these committees. Such was provided to all attendees.

Mr. Root then asked if the attendees wanted to adopt the templates as is, or to review and tailor them as appropriate. It was moved by Patricia Gibbons that a work-group be established to follow, edit and expand these templates. A second was not heard, but discussion followed to determine if we could operate informally while this workgroup was acting to flesh out these templates. It was the consensus of the group assembled that some efforts were appropriate in parallel, and other activities needed to be conducted in sequence.

Mr. Root said he envisioned that five workgroups would be appropriate: 1) By-laws; 2) Spectrum Planning; 3) Operations; 4) Interoperability; and 5) Wide-band spectrum needs. It was subsequently decided through discussion that "Operations" and "Interoperability" could and should reside in the same working group; that is, the third working group became "3) Operations including Interoperability needs". This reduced the aggregate number to four working groups.

John Powell said that we should be careful not to conflict with the spectrum allocations developed in the Region 5 Regional Plan; that is, those that border the southern boundary of Region 6 or those designated as region-wide [or state-wide]. He said we should also coordinate our allocations with our Nevada and Oregon neighbors.

Mr. Root offered for discussion, whether or not we need to establish sub-regional planning groups so that urban and sub-urban needs could be considered. Bill De Camp said that he didn't believe that sub-regional planning groups were warranted. He suggested that this well- and long-advertised event drew far fewer than the 80 attendees anticipated a fact which was likely due to the encumbrances associated with the 700 MHz spectrum. He elaborated that in the major population areas, the spectrum will not be usable until 2007 at the earliest. He added that Region 5, comprising ten counties containing the bulk of California's population, was successful in finalizing their plan without sub-regional planning groups, and that their Committee and Working Group attendance was proportionally similar to the turnout at this meeting. He suggested that these realities suggest that region-wide committee and working group meetings should be sufficient. As there were no comments in favor of sub-regional planning groups, the topic was not pursued further.

Mr. Root then moved on to discussing the officers and leadership chairs. He acknowledged that a Chairperson, Vice Chairperson, and a recording Secretary were appropriate. He also noted that some regions have elected a Treasurer as the National Institute of Justice offers a one-time planning grant of up to \$2,500 to each RPC to assist in the committee's gathering, printing and distribution of written materials. Should we pursue this grant, a fiscal person may be appropriate as a Chair on this RPC.

Root opened nominations for these various chairs beginning with the Secretary. Nominations were opened. Lacking any nominations, Thomson volunteered to perform this function. As no controversy existed, Thomson was seated upon unanimous voice vote of the assembly. The next chair nomination entertained was for the Committee Chairperson. In the absence of nominations, Bill De Camp volunteered for this position with a second offered by Terry Betts. A motion to close the nominations was proposed by Scoop Sairanen. A second was not heard, but a unanimous voice vote confirmed the seating of Mr. De Camp as Chair. Nominations were then called for the Vice-Chair. Mr. Betts was nominated with Mr. Root also volunteering. Mr. Betts regretfully declined his nomination due to the press of personal business. Mr. Powell took the floor and proposed that a non-state person should be considered for the Vice-Chair so as to avoid having it appear that the committee was monopolized by the State. Mr. Powell then nominated Ms. Gibbons. Mr. Root withdrew from the contention, bowing to Mr. Powell's concern. Ms. Gibbons then was seated by a unanimous voice vote.

Mr. Root posed the question again: do we need to establish the position of Treasurer? The consensus was that the position should be created to pursue and coordinate the \$2,500 grant. Mr. Root was nominated (volunteered) and was seconded by Mr. De Camp. Mr. Root was seated by unanimous voice vote of the assembly.

Mr. Root then moved to the next order of business - that of setting workgroups and memberships within each.

The By-laws Workgroup should meet again mid-July. Mr. De Camp nominated Mr. Root for this chair. Kent Eldridge and Randy Hagar volunteered to assist in the By-Laws Workgroup.

The Spectrum Management Workgroup: Mr. De Camp indicated his desire to chair this workgroup stressing the workgroup's importance while opening it up for volunteers. Mr. Root outlined what this group would be doing; that is, it would be soliciting interest from all eligible agencies in obtaining channels in this new spectrum, evaluating each proposer's justification for their requests, and making judgments as to the appropriateness of same. An allocation table would result that would ultimately be filed with the FCC as part of this Regions Plan submittal. The following persons volunteered for the Spectrum Workgroup: John Powell, Bill De Camp, Kent Eldridge, Tom Laye, Don Root, and Jim Vell. It was indicated that Mr. Root would chair this workgroup.

The Operations Workgroup was next discussed. This workgroup would evaluate operational issues including interoperability standards. It was noted that in Region 5, this workgroup evolved to writing the Region 5 Plan. Mr. Root pointed out that California had filed a letter with the Commission asserting it would host and adopt a State Interoperability Executive Committee (SIEC) to plan, and as best as possible implement and manage a statewide set of interoperability channels. Mr. Root again posed the question if there was a need to establish a separate Bay Area operations sub-workgroup? No response was noted. Mr. De Camp suggested that as John Powell was the chair of the state's SIEC, that it would be very appropriate if he would consider chairing the Operations Workgroup. Mr. Powell accepted this charge. The following Operations Workgroup volunteers came forward: Angela Azevedo, Brad??? Fenster, Carol Biancalana, ??? Linfort, Mike MacRae and Don Root.

As an aside, the discussion went to the possibility of setting up Yahoo e-mail groups to facilitate workgroup inter- and intra-correspondence. Mr. Root indicated he could do this. Ms. Gibbons indicated that some postings concerning the 700 MHz Committee's activities could be made on the NAPCO web site. It was noted that links to under-construction 700 MHz topical pages were presently provided by NAPCO's web site.

Mr. Root noted that we had yet to discuss the Wide-Band workgroup. He preferred to see this workgroup's creation deferred until the Spectrum Management Workgroup could complete evaluation of voice spectrum requests. Region 5 was noted to have made a similar decision. It was also noted that the Region 5 spectrum use solicitations saw a 5:1 ratio between data requests and voice requests.

Mr. De Camp indicated that the NCC templates include the suggestion that meeting locations be rotated so that as many people could participate as possible. The question was posed if the full Committee wished to schedule by-monthly meetings? The consensus was no - that it would be difficult to comply with the FCC's Public Notice requirements by meeting that frequently; the Rules specify a 60-day noticing period. On the other hand, there was no notice provision imposed for workgroup meetings that could meet as frequent as needed.

The next full Committee meeting was discussed. A mid-September meeting was proposed. Several dates were posed and Mr. Root found agreement for Thursday, October 3, 2002, either at the OES HQ's facility in Sacramento, or at the Alameda County OES facility at Pleasanton. The FCC will be noticed for this meeting. Workgroups were free to set as many meetings as their Chairpersons deemed productive. The Operations and Spectrum Management workgroups indicated that their next meeting would be at the state OES HQ facilities (subject to the availability of space) on July 25. The Operations meeting is planned for 1000 hours and the Spectrum meeting is scheduled for 1300 hours.

Mr. Root indicated he would take the lead in applying to the NCC for the first grant of \$2,500.

As there was no further business, the meeting was adjourned at 1132 hours



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**DA 02-1967**  
**August 12, 2002**

## **WIRELESS TELECOMMUNICATIONS BUREAU ACTION**

### **REGION 6 (NORTHERN CALIFORNIA) 700 MHz REGIONAL PLANNING COMMITTEE ANNOUNCES SECOND MEETING**

The Region 6 (Northern California) 700 MHz Public Safety Regional Planning Committee Chair announces that the second meeting of Region 6 700 MHz Public Safety Regional Planning Committee will be held on October 3, 2002 at 10:00 a.m., at the Alameda County Office of Emergency Services, 4985 Broder Boulevard, Dublin, California. The Northern California Region is composed of the 48 counties of California situated north of the northernmost borders of San Luis Obispo, Kern and San Bernardino counties.

The purposes of the meeting are to:

1. Review the status of the FCC rules for the 700 MHz band,
2. Review the work to date of the Public Safety National Coordination Committee,
3. Review the availability of 764 – 776 MHz and 794 – 806 MHz public safety frequencies within Northern California:
  - Prior to date when primary commercial TV broadcasters are mandated to vacate channels, and
  - After the date when primary commercial TV broadcasters are mandated to vacate channels (in light of sharing by adjacent states, Mexico, etc.)
4. Review 700 MHz-relevant work performed by the following organizations:
  - National Public Safety Telecommunications Council 700 MHz Regional Planning Guidebook
  - National Law Enforcement and Corrections Technology Center Pre-planning data base
5. Review and, where appropriate, approve efforts to date of the following workgroups:
  - By-Laws

- Operations and Interoperability
- Spectrum

The Region 6 (Northern California) 700 MHz Public Safety Planning Committee meeting is open to the public. All eligible public safety providers whose sole purpose or principal purpose is to protect the safety of life, health, or property in Region 6 would utilize these frequencies. It is essential that not only public safety, but all government, Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's Rules be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate and represent your agency's needs.

All interested parties wishing to participate in the planning for the use of new public safety spectrum in the 700 MHz band are encouraged to attend. For further information about the meeting, please contact:

William De Camp, Chair  
Region 6, 700 MHz Regional Planning Committee  
Department of General Services,  
Telecommunications Division  
601 Sequoia Pacific Boulevard, MS-WH7  
Sacramento, CA 95814-0282  
PH: 916-657-9205  
FX: 916-657-9231  
Email: [william.decamp@dgs.ca.gov](mailto:william.decamp@dgs.ca.gov)

– FCC –

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## **2<sup>nd</sup> Meeting**

### **Minutes**

#### **700 MHz Regional Planning Committee**

**Minutes 10/03/02**

#### **Alameda County OES, 4985 Broder Boulevard, Dublin, CA**

Meeting opened at 1009 hrs by Chair Bill De Camp. Self-introductions followed and a sign-in sheet was circulated. ~

Revised meeting packet was distributed. It included:

- Map of TV station allocations 62-69
- Draft By-Laws,
- A draft letter to all possible 700 MHz users
- More

Treasurer's position - Don Root had been elected Treasurer at the prior meeting. Discussed)n, at operations meeting about the \$2,500 grant offered by the NIJ brought concerns that the workgroups were heavy with state staffers. Moved (Engstrom) and Seconded (Root) to name Gibbons as Secretary as San Jose would be postured to hold the grant moneys.

Vice-Chair - Gibbons indicated she was willing to step down from Vice-Chair as she has been named Treasurer. No volunteers came forward to take Vice-Chair. She will hold both seats for now. It was suggested that the Vice-Chair opening could be posted on the web site to see if any others come forward with an interest to fill the position. It was the consensus that there be time limit for posting so as to move forward.

- 1) Notable Rules Governing 700 MHz
- 2) Bandwidth should be a discussion focus item. Discussed with Jeff Blau of Motorola -2 slot TDMA in 12.5 kHz.
- 3) Floor discussion on future implementation of mixed 800 analog and 700 MHz digital channeling. De Camp will generate a discussion paper.
- 4) Discussed 2006 TV vacation requirement and Thera Bradshaw's appearance before Congress.
- 5) NPSTIC GUIDEBOOK review, a newly revised booklet to be issued in November 2002 as a paper, web posting and CD (distribution media) <CAPRAD>
- 6) Chair De Camp indicated he had arranged to attend training at Denver on the CAPRAD database; and asked for a volunteer as a second participant. The training was offered 10/22 - 24 at Denver. Pres Thomson volunteered. Patricia Gibbons indicated she also would like to attend and would seek San Jose's fiscal support as a possible third person. Overacker indicated that he would also be a possibility but needed to verify such with his management. MSP that De Camp and Overacker would attend the training.
- 7) Draft By-Laws discussed. Question why is not 700 MHz mentioned? Trend in FCC thinking to RPC allocation of 4.9 MHz management - as well as the possibility of doing the NPSPAC administration as a combined responsibility.
- 8) Discussed and adopted (MSP) a name for this Committee - Public Safety Region 6 Regional Planning Committee.

Discussed shifted to the draft plan:

- 1) Question the coordination with other Regions - This was taken into the structure for the local plan re-write
- 2) 2.1.1 has many issues. Proxy votes discussed. Handed back to work group.
- 3) 3.1 - Annual Meeting - discussed appropriateness of holding a meeting concurrent with Federal Fiscal Year? Or specify a quarter? Left open
- 4) 3.3 - Working meetings - discussed function of same.
- 5) 3.4 - Notice - Has had difficulties in gaining Commission cooperation in publishing Public Notices for meetings.
- 6) 3.5 - Quorum - (focus back on 2.11)
- 7) 3.6, 3.7, 3.8, 3.9, 3.10 - were discussed without comments.
- 8) IV - Terms as 2 years staggered to avoid talent depletion.
- 9) Committees are not so provided within the structure of this draft (Work Groups) (see 3.3).

General on draft (above)

Remove gender bias - "Chair" vs. "Chairman"

Continued Review of draft Region 6 -700 Plan"

- 1) Mapping and Region 6 description
- 2) Population statistics
- 3) Who are anticipated users of 700 MHz?
- 4) Point - need to include wording to preclude EMS providers from conducting private business activities on governmental radio system. The Plan needs refinement in this area.
- 5) Questions on frequency allocations brought to the table from Region 5 action. In reference to State-wide allocations. (Page 6 of 16)
- 6) 4 - typo noted (Page 7 of 16)
- 7) 5.3 - Approval of committee required before the application is submitted to the Frequency Coordinator selected by the applicant. (Page 9 of 16)
- 8) 5.5 - Rewrite large city posture emphasis on not to be part of dispute.
- 9)-6.1- Questions on SIEC.
- 10) 6.2 - to be modified later.
- 11) 6.4 - Later. State does not now monitor mutual aid channels?? "It is desired that the State- monitor ... " Left open to future adoption.
- 12) 7 - High Quality Receivers vs. "Low Qualify" specifications. How determined?
- 13) 8 - Possibly move encouragement of development or building multiple agency system to earlier plan statement.
- 14) 8.1 - Aircraft - need to establish State-wide aircraft channels for CALCORD-type operations.
- 15) 8.2 - This is a starting point and needs further discussion at the Workgroup level.
- 16) 8.3 - Paragraph subject to revision (as 85% penetration should be removed). Need for periodic reports emphasized.
- 17) 8.5 - Elements shown as priorities to judge the more appropriate party in a channel contention.
- 18) 10 - work in progress
- 19) 11 - WB data - deferred topic.

Reviewed draft letter to all interested parties. Add an invitation to participate in this planning process. Suggested augmenting letter, with formal data responses that may be more easily loaded in a spreadsheet format for comparison purposes.

Question - Whose mailing list should be used? - How to reach the greatest number of possible respondents? Extensive discussion followed. Suggested agencies respond through manager if one is a member of multiple agency communications system. .

Gibbons is to generate a press release to trade concerning our efforts to gather needs for future consideration. Need to move on letter by November 2002 while trying to maintain a 7 -month response cycle.

Preston Thomson, Secretary



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DA 03-612  
March 3, 2003

## WIRELESS TELECOMMUNICATIONS BUREAU ACTION

### REGION 6 (NORTHERN CALIFORNIA) 700 MHz REGIONAL PLANNING COMMITTEE ANNOUNCES THIRD MEETING

The Region 6 (Northern California) 700 MHz Public Safety Regional Planning Committee Chair announces that the third meeting of Region 6 700 MHz Public Safety Regional Planning Committee will be held on Monday, April 14, 2003 at 10:00 a.m., 707 Third Street, West Sacramento, California in the Ziggurat Building's 1<sup>st</sup> floor auditorium (room 1-301). The Northern California Region is composed of the 48 counties of California situated north of the northernmost borders of San Luis Obispo, Kern and San Bernardino counties.

The agenda for the meeting is as follows:

1. Review status of ongoing efforts performed by the following organizations related to the 700 MHz public safety spectrum:
  - Federal Communications Commission (see <http://wireless.fcc.gov/publicsafety/700MHz/> for related info)
  - National Coordination Committee (see <http://wireless.fcc.gov/publicsafety/ncc/> for related info)
  - National Public Safety Telecommunications Council (see <http://npstc.du.edu> for related info)
  - Ad hoc political factions
2. Review and approve efforts to date of the following workgroups:
  - By-laws
  - Operations and Interoperability
  - Spectrum

3. Discuss the utility of the Computer-Assisted Pre-Coordination Resource and Data Base System (see <http://caprad.nlectc.du.edu/login/home> for related info)
4. Discuss the roles and status of the State Interoperability Executive Committee (see <http://npstc.du.edu/siec/siec.htm> for related info)
5. Review the status of the eligible agency requirements definition survey instrument for frequencies in the 700 MHz band posted December 2002 on the Region 6 website (listed above).
6. Review the availability of 764 – 776 MHz and 794 – 806 MHz public safety frequencies within Northern California:
  - Prior to date when primary commercial TV broadcasters are mandated to vacate channels, and
  - After the date when primary commercial TV broadcasters are mandated to vacate channels (in light of sharing by adjacent states, Mexico, et cetera)
7. Discuss the status of revisions required to the Region 5 (Southern California) 700 MHz plan.

The Region 6 (Northern California) 700 MHz Public Safety Planning Committee meeting is open to the public. All eligible public safety providers whose sole purpose or principal purpose is to protect the safety of life, health, or property in Region 6 would utilize these frequencies. It is essential that not only public safety, but all government, Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's Rules be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate and represent your agency's needs.

All interested parties wishing to participate in the planning for the use of new public safety spectrum in the 700 MHz band are encouraged to attend. For further information about the meeting, please contact:

William De Camp, Chair  
Region 6, 700 MHz Regional Planning Committee  
Department of General Services,  
Telecommunications Division  
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– FCC –

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## **3rd Meeting**

### **Announcement / Agenda**

### **Minutes**

### **Region 6, 700 MHz RPC Meeting April 14, 2003**

### **Ziggurat Building - 707 Third Street - West Sacramento, CA**

Attendees:

See attached sign-in sheet

Agenda:

The agenda for the meeting was as follows:

1. Review status of ongoing efforts performed by the following organizations related to the 700 MHz public safety spectrum:

- o Federal Communications Commission (see <http://wireless.fcc.gov/publicsafety/700MHzI> for related info)

- Released October 4, 2002 - Sixth Notice of Proposed Rulemaking for WT Docket No. 96-86

I. Proposed rule changes which would align the Commission's rules with industry standards documents and revise the values for Adjacent Channel Coupled Power (ACCP) emission limits for public safety transmitters operating in the 764-776 and 794-806 MHz frequency bands. The proposed values reflect an industry consensus in response to the FCC's SMOO.

ii. PS communications systems were originally based upon analog 25 kHz frequencies for voice systems. To accommodate a migration to digital and data systems, the FCC in Section 90.543 established emission limits for the 700 MHz band based upon ACCP - an emission limit based upon the absolute and relative levels of coupled power as a function of frequency that ensures that the adjacent channel interference potential of transmitters at various bandwidths is consistent and predictable.

- Released December 31, 2002 - WT Docket No. 02-378 700 MHz PS Band General Use Channels - Announcement Docket Number For Filings Related To Regional Plans

I. Wireless Telecommunications Bureau establishes this docket to be used exclusively for filings related to the Commission's review and approval of regional plans or amendments thereto regarding the 12.5 megahertz of spectrum in the 764-776 and 794-806 MHz band designated for general use.

ii. There are 55 RPCs and each committee is required to submit its plan for the general use spectrum.

iii. Each regional plan must contain certain elements and must be coordinated with adjacent regions.

- o National Coordination Committee (see <http://wireless.fcc.gov/publicsafety/ncc/> for related info)

- November, 2002 - NCC Subcommittee Meeting and NCC Meeting synopsis

- February, 2003 - NCC Subcommittee Meeting and NCC Meeting synopsis

- o National Public Safety Telecommunications Council (see <http://npstc.du.edu> for related info)
  - o Ad hoc political factions
  - Introduced March 25, 2003 - Homeland Emergency Response Operations (HERO) Act
    - i. Sets a deadline of December 31, 2006 for the Federal Communications Commission (FCC) to provide public safety agencies sole access to the broadcast spectrum Congress set aside for them in 1997.
    - ii. Introduced in Congress by Jane Harman (D. CA) ranking member of the Permanent Select Committee on Intelligence, and Rep. Curt Weldon (R. PA), vice chair of the Armed Services Committee.
2. Discuss the status of revisions required to the Region 5 (Southern California) 700 MHz plan.
- o Inter-Regional Coordination Procedures and Procedures for Resolution of Disputes That May Arise Under FCC Approved Plans
    - NCC Model with a footnote modified to exclude base stations more than 70 miles from bordering Region(s).
    - Region 5 - 700 MHz Plan
    - Submitted to FCC on April, 2002;
    - Returned unapproved by FCC on December 30, 2002;
    - Plan revisions incorporated (see handout)
    - To be resubmitted after April 16, 2003 Region 5 - RPC meeting.
  - o Region 6 Chair seeks authority to endorse Region 5 Plan and to endorse Interregional Agreement on behalf of Region 6.
3. Review and approve efforts to date of the following workgroups:
- o By-laws (review deferred to late June workgroup meetings [establish meet. . .])
  - o Operations and Interoperability (plan updated per last meetings inputs; final revisions awaiting fate of Region 5 plan)
  - o Spectrum
    - Updated CAPRAD distribution incorporated into CAPRAD subsequent to New York State Technology Enterprise Corporation (NYSTEC) and Syracuse Research Corporation submission of "Technical Report for the Generation of the National 700 MHz Public Safety Pool Allotments (Narrowband General Use Channel Set) Documentation of Methodology and Results" submitted to NLECTC and NPSTC on January 31, 2003 (Click on Documents at <http://caprad.nlectc.du.edu/login/home>, then review Technical Reports.
    - Become familiar with NYSTEC Pool Allotments and discuss in detail at late June workgroup meeting.
    - Consider Pool Allotments distribution where requests are not forthcoming.
4. Review the status of the eligible agency requirements definition survey instrument for frequencies in the 700 MHz band posted December 2002 on the Region 6 website (listed above).

- o Review any inputs received from agencies responding to December 13th Solicitation of Interest.
- o Review effectiveness of posting Survey on Region 6 website (December 13th, 2002) and advertising in the Northern Californian (January 1, 2003) and subsequently emailing as a reminder.

5. Discuss the roles and status of the State Interoperability Executive Committee (see <http://npstc.du.edu/siec/siec.htm> for related info)

- o Southwest Regional Colloquium by NPSTC around October 8 or 9 (preceding October 10th NAPCO meeting in Salinas, CA.

- Presentations on Regional Planning Considerations regarding:

- State Spectrum Use

- Border Issues

- SIEC

- NPSTC

- Funding

- Presentations relative to:

- Technical Issues regarding 700 MHz Use

- Plan Approval

- Inter-Regional Coordination • Roundtable discussion relative to:

- FCC Coordination

- NPSTC's role

NAPCO presentation on October 10 will be provided by NPSTC - A CAPRAD Overview.

6. Discuss the utility of the Computer-Assisted Pre-Coordination Resource and Data Base System (see <http://caprad.nlectc.du.edu/login/home> for related info)

7. Review the availability of 764 - 776 MHz and 794 - 806 MHz public safety frequencies within Northern California:

- o Prior to date when primary commercial TV broadcasters are mandated to vacate channels, and
- o After the date when primary commercial TV broadcasters are mandated to vacate channels (in light of sharing by adjacent states, Mexico, et cetera)

#### **Proceedings relative to Agenda Item #1:**

ACCP item 90.543

Consolidation of dockets for plan. Comments and filing common docket WT02-378.

Nash - NCC report, (asked, nothing of issue), Region 5 noted as failed and is going to refile

Nash - NCC Interop portions of spectrum Project 25 adopted for voice and data interop. TIA working on standards for WB data 50 kHz channels. Can use any mode on general use spectrum as suits one's needs, but only those standard adopted nationally can be used on interops. NCC to be filed as completing work July 10.

Powell arrived, asked for NCC and NPSTC comments. (FY 2004 approved and implemented).

NPSTC working items:

Software Defined Radio standards efforts to date - Manufacturers involved with cell/PCs and business, but not public safety. Also introduced international requirements. NPSTC-CAPRAD database funding sure. Allocation to NIJ to expand database to 800 MHz (Nextel) and all national interop channels. When NPSTC folds (charter completed), NIJ may take on their role.

An additional round of \$2500 grants for all Regions coming up. Rules on 4.9 GHz pose possibly public next week. Internet IP addressing standards are a possibility. Standard format ID card with a smart chip for disaster workers as a side project. 4.9 GHz uses reviewed, greenspace except radio astronomy uses. "Hot Spot Technology", aviation uses may be impacted. Won't know if accommodated until FCC action (possibly next week).

#### **Proceedings relative to Agenda Item #2:**

Region 5 plan and inter-regional agreement covered (enclosed in package).

Actions

Motion by Powell, second by Root

Aye to permit chair to sign inter-regional coordination procedures. Discussed substantive changes on page 3 of:

- Region 5 plan (Indian tribal)
- Section 9, page 12 - Channel quantities near region border areas.
- Section 5.5, page 5 - Mexico issues (omitted in R5 plan-Powell). If an agency is allocated a two-12 kHz channel and only uses one 12 kHz, how can the vacant 12 kHz segment be reused? Issue suggested for Region 5 at next week's meeting.

Q - With 4.9 GHz, we ponder how extensive data uses will develop at 700 MHz. More than likely, 700 MHz will become a linkport to 4.9 GHz local net at an incident.

#### **Proceedings relative to Agenda Item #3:**

CAPRAD distribution - See blue and yellow sheets in meeting handouts. 700 MHz allocation draft. Computer package looked at highest-level sites to determine suitability. E.g. worst possible case situations. Program was run as a nationwide project to deal with state border issues. Considered only as a starting point. Modifications can introduce a ripple effect with nearby states.

June meeting date considered for CAPRAD review, 17th and 18th suggested. Discussed priorities on agenda/sequencing possibilities at OES Mather.

#### **Proceedings relative to Agenda Item #4:**

Survey responses discussed. Notices to CAOs, CMs. and SVC Chiefs. Also to service chief organizations (Fire Chiefs, Sheriff's Offices). Suggestion of public notices in major newspapers.

#### **Proceedings relative to Agenda Item #5:**



SIEC Status. Internal OES meeting tomorrow (April 15). No information but general background issues by Root. SW Regional Colloquium by NPSTC, October 8 or 9 proposed (see items in agenda). Salinas or elsewhere discussed. Salinas may not accommodate all travelers. (Salinas was offered as dates precede APCO meeting.) Strongly suggested NOT to couple presentation to an APCO chapter meeting due to political considerations. Bay Area or Sacramento better choice for Southwest connections. Chair to forward comments to CAPRAD presenter.

#### General

Secretary's (Preston Thomson) resignation - no response at this time to vacancy. Chris Graillat (EMSA) volunteered. Announced Chris Graillat (EMSA) as Region 6 Secretary. Motion by Root; second by Redding; no opposition; Passed

Kent Eldridge asked about a merge of 4.9 GHz, NPSPAC, and 700 MHz committees? Certainly a move for all interops to come under SIEC.

Meeting Adjourned 1232 hours.



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Washington, D.C. 20554

DA 03-2841  
September 8, 2003

## WIRELESS TELECOMMUNICATIONS BUREAU

### **REGION 6 (Northern California) PUBLIC SAFETY PLANNING COMMITTEES ANNOUNCE FIRST REGION 6 4.9 GHz PUBLIC SAFETY PLANNING MEETING AND FOURTH REGION 6 700 MHz PUBLIC SAFETY PLANNING MEETING**

The Region 6 (Northern California)<sup>1</sup> Safety Regional Planning Committees announces two Regional Planning meetings.

The Region 6 4.9 GHz Public Safety Regional Planning Committee meeting will hold its first planning meeting at 9:00 a.m. on Wednesday October 29, 2003, in the Ziggurat Building 1<sup>st</sup> Floor Auditorium, Room 1-301, at 707 Third Street, West Sacramento, California. The purposes of the meeting are to:

1. Experience one or more 4.9 GHz spectrum capabilities presentation(s),
2. Overview the FCC rules, their implications, and any intervening rule changes pertaining to this important broadband public safety 4.9 GHz allocation,
3. Review status of ongoing efforts performed by the following organizations related to the 4.9 GHz public safety spectrum including:
  - Federal Communications Commission (see <http://wireless.fcc.gov/publicsafety>)
  - National Public Safety Telecommunications Council (see <http://npstc.du.edu>)
  - Other entities, including ad hoc factions,
4. Form workgroup(s) conducive to proceeding with:
  - Establishing coordination procedures for fixed and mobile broadband operations giving consideration to concerns and capabilities such as
    - (a) Incident management protocols

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<sup>1</sup> Region 6 (Northern California) is comprised of the 48 counties of California situated north of the northernmost borders of San Luis Obispo, Kern and San Bernardino counties.

- (b) Interference avoidance
  - (c) Interoperability
  - (d) Flexibility aimed at affording dynamic spectrum utilization
5. Establish milestones for plan.

(over)

The Region 6 700 MHz Public Safety Regional Planning Committee meeting will hold its fourth planning meeting following the 4.9 GHz Public Safety Planning Committee meeting and is scheduled to begin at 1:30 pm, on Wednesday October 29, 2003, in the Ziggurat Building 1<sup>st</sup> Floor Auditorium, Room 1-301 at 707 Third Street, West Sacramento, California. The purposes of the meeting are to:

1. Review the status of ongoing or culminating efforts performed by the following organizations or quorums in advancing 700 MHz public safety spectrum guidelines and/or rules:
  - Federal Communications Commission (see <http://wireless.fcc.gov/publicsafety/ncc> for related info)
  - National Coordination Committee (see <http://npstc.du.edu> for related info)
  - Ad hoc political factions
2. Overview the status of the Computer-Assisted Pre-Coordination Resource and Data Base System (see <http://caprad.nlectc.du.edu/login/home> for related info)
3. Review and approve efforts to date of the following workgroups:
  - By-laws
  - Operations and Interoperability
  - Spectrum
4. Review the status of the eligible agency requirements definition survey instrument for frequencies in the 700 MHz band re-posted July 2003 on the Region 6 website at <http://www.rgn6rpc.org/>
5. Discuss the status of the Region 5 (Southern California) 700 MHz plan.

Both of the Region 6 (Northern California) Public Safety Planning Committee meetings are open to the public. All eligible public safety providers whose sole purpose or principal purpose is to protect the safety of life, health, or property in Region 6 would utilize these frequencies. It is essential that not only public safety, but all government, Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's Rules be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate and represent your agency's needs.

All interested parties wishing to participate in the planning for the use of new public safety spectrum in the 4.9 GHz band and 700 MHz band are encouraged to attend. For further information about the meetings, please contact:

William De Camp, Chairman  
Region 6, 700 Regional Planning Committee  
Department of General Services,  
Telecommunications Division

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## **4<sup>th</sup> Meeting**

### **Minutes**

#### **700 MHz Regional Planning Committee Meeting Minutes October 29th, 2003**

**Date and Time: Wednesday, October 29th, 2003, 1 :30 p.m.**

**Location: 707 Third Street, West Sacramento (Ziggurat Building 1st floor auditorium) Meeting minutes: Fourth meeting of the Region 6 700 MHz Public Safety Regional Planning Committee (RPC)**

Overview (Bill De Camp):

Bill reviewed the status of ongoing or culminating efforts performed by the following organizations or quorums in advancing 700 MHz public safety spectrum guidelines and/or rules:

- Federal Communications Commission (see <http://wireless.fcc.gov/publicsafety/700MHzI> for related info)
- National Coordination Committee (see <http://wireless.fcc.gov/publicsafety/ncc/> for related info)
- National Public Safety Telecommunications Council (see <http://npstc.du.edu> for related info)
- Ad hoc political factions

Statewide Interoperability Executive Committee (SIEC):

First meeting was held October 30, 2003, at the Office of Emergency Services (OES) to comply with FCC requirements. The committee will develop a comprehensive public safety interoperability communications plan for California. The committee comprises representatives from state, local, and federal public safety agencies.

Structure of 4.9 GHz and 700 MHz committees:

Don Root suggested that the 4.9 GHz bylaws committee be a sub under the 700 MHz bylaws committee. There was a suggestion that the RPC use the 700 plan as the basis for developing the 4.9 GHz plan. Many requirements for developing 4.9 GHz plan are the same as for 700 MHz. Regions 5 (So. California) and 24 (Missouri) have developed 700 plans, which can also be used for reference. However, there was more discussion that the 4.9 GHz must be a separate plan, in part because FCC rules are different for each plan.

Coordinating with the FCC:

Steve Devine recommended that the RPC work with the FCC throughout the process so the FCC may be flexible in fulfilling demand for spectrum as changes occur, and we can avoid filing multiple addendums to our plan. The RPC plan should be dynamic to allow for changes, and the RPC could be the repository for constituents' spectrum information. However, the RPC must know what the FCC's expectations are for the plan and whether future changes are acceptable.

Surveys:

Reminder that 700 MHz surveys are due to Bill by January 31, 2004.  
Computer-Assisted Pre-Coordination Resource and Data Base System (CAPRAD) Presentation by of the National Law Enforcement/Corrections Technology Center:

Mr. Dave Funk, NPSTC's CAPRAD expert, overviewed the centers capabilities. Per Dave Funk, the center is the support office for the National Public Safety Telecommunication Council (NPSTC) in Denver and manages the CAPRAD system. The system greatly simplifies recordkeeping, coordinates data for regional spectrum planning and offers flexibility and real-time recordkeeping (see <http://caprad.nlectc.du.edu/login/home> for related info).

Capabilities of CAPRAD (Dave Funk):

CAPRAD assists with planning and submitting applications for frequencies. It also provides links to other key sites; e.g., the FCC, and Native America Online (<http://www.nativeamericainc.com/>) to facilitate outreach to tribes.

The CAPRAD site explains how to file regional plans. Templates are available to assist regions in developing plans. The site also has a band plan available online to public, but some of the site is accessed only by authorized regional coordinators. Visitors can go to the training site to learn how to use the system without affecting their actual data. They can use the database to create and submit applications for frequencies and to develop the regional plan.

The CAPRAD system will ask regions to address general use channels as well as interoperability channels. SIEC will manage how the interoperability channels work in California.

State license set-asides: Are given to each state and are based on geographic licenses. Glen Nash holds the set-aside for Calif. The state must determine what to do with it. CAPRAD allows you to apply locations to the state licenses and gives a plan for the licenses.

Allocation: Allocation can be done in 25 kHz blocks to allow regions to plan for users based on the 25 KHz allotment. This set up still allows licensing and breakouts of channels to smaller groups, e.g., in 12.5 or 6.25 kHz equivalents, depending on what technology is available at the time of licensing. Visit "Technical Reports" on the main Web page to learn how the national packing plan was developed for 700 MHz.

Packing plan: Each region is supplied with national packing plan allocations as a starting point for the distribution of channels in the 700 band.

Each state is issued the same set of frequencies; the packing plan takes into account cross-border issues with general-use channels and protects state borders with non-interfering channels. Because of the packing plan, general-use channels are well-handled. The challenge may remain over where to put the channels. The FCC says the regions can place them where they want.

Data channels: The RPCs must determine where to place data channels, which aren't covered under packing plan because there are many options to use. The center of the 700 band is set aside for wideband data and can be aggregated into 50, 100, or 150 kHz channels. The more the regions aggregate, the less they have to go around. Regions can view the plans to determine how counties have placed channels.

Channel setup: The subscriber determines the set up for channels and how to put them into effect. The national pack doesn't have to be used. As an example, Region 5 established its own setup for channels, using 6.25 KHz channel size to have enough to go around. Region 5 has set up channels in a provisional area to allow it to make use of the channel as it proceeds. Several are set up for interoperability. The CAPRAD system colorizes channels to match FCC charts. CAPRAD allows regions to be specific or general (but within FCC guidelines) with the setup.

TV Stations: CAPRAD can also identify TV stations and give info about TV stations provided by FCC. This info is updated quarterly. CAPRAD site has a code glossary for terminology used on the site. It can also give you info on call sign using a link to the FCC.

Allocation and plan management: Each region is required to set up an allocation of channels and plan management through CAPRAD. CAPRAD gives you an opportunity to work in a plan and will track and monitor the status of the region. People can read online plans and comment on them for different regions, like an online bulletin board system to share information on regional planning issues.

Spectrum summary page: Shows how channels were set up and allotted and how regions stand in terms of final planning and which channels the regions are responsible for.

Reports: Can be used for reference for a planning committee or used in developing the regional plan. Data from the reports can be copied and pasted into Excel spreadsheets. You can also check the status of other regions' plans and develop a member report to track who had access to the database, etc.

Plan documents: Are maintained on CAPRAD and operated as a library of documents. Regional managers can access and manage them. Capri's document management

System can enhance development of plans. ..•

One person voiced a concern about the availability of plan information for all regions, Le., for security issues. However, the FCC wants the plans to be available to public; plans will be published by FCC and public comments will be solicited. Regions must consider this in determining what level of detail they want to include in their plans.

Preview channels: Channel finder allows you to see available frequencies, allotments, and bandwidths. The status of an application is indicated by color-coding (e.g., blue = allotted, red = channel is applied for and application sent to coordinator, yellow = applied for and application is still in system, green = allotted).

Applications: CAPRAD system maintains all applications entered into it. Applications are not accessible to public (although plans are). The RPCs can set up applications so that they can be accessible to planning and review committees, and they can use the system to manage/review. applications.

Applicants can assign coordinators to access their applications so that coordinators have input into the application process. Applicants can add links to coordinators' sites. The

October 29th, 2003 -700 MHz Regional Planning Committee Meeting Minutes

Originator, manager and planner all have authority over an application. A "co-owner" can have authority to make changes as well (e.g., Motorola or consultant to system). CAPRAD also allows applicants to add attachments to their application, use an automatic notification system and other features, including an option for a "quick check" of the application that evaluates it based on current FCC requirements. The system monitors application status and maintains history of 'who did what.'

Packing plan development: The national packing plan is based on population, using a national normalized approach; general terrain data; normalized usage data based on public safety agencies from the PSW AC report. Visit the site to learn how the packing plan was developed and what the logic was for allotting channels. Regions can modify the packing plan for their area based on their needs. Another benefit of the packing plan is that it can be used to manage conflicts at borders between adjacent regions, except for Region 5. Region 6 will have to work with Region 5 on border issues in developing its plan.

Future developments: Modules will be added to CAPRAD to assist with managing SIEC channels in 700 MHz and other bands (used for interoperability).

Additional business:

Bill noted that the link to 'frequency coordination' on the APCO site will give you 4.9 GHz news.

Minutes for the April meeting were approved, and June 17 and 18 workgroup meetings minutes were handed out.

Bylaws draft: The committee put a lot of time into the bylaws, which were discussed at the June workgroup meetings. The committee would like to submit bylaws for approval at the next RPC meeting early next year. Comments are solicited.

Development of plan: The group wants to refine the plan at the next workgroup meeting and will apprise RPC of status of the plan at next RPC meeting. The group will use and learn from feedback on Region 5 plan.

FCC: Someone asked if there was any news from the FCC since the last RPC meeting in April. Someone commented that the NCC is no longer in existence after July. NPSTC is stepping in. John Powell made a recommendation for the commission to provide flexibility for moving "orphan channels." Regions need to be able to move orphan channels for use elsewhere if a solution is workable and need flexibility in the system to allow that capability to assist planners.

Interference issue: Some agencies in the SF Bay Area on Channel 16 (old Channel 30) are receiving co-channel interference from KSEE in Fresno. Dave Buchanan would like those who have interference to contact him. The channel's digital license site is only 50 kilowatts, but it is transitioning to a 150 site, which will increase problems.

Dave Buchanan noted that there are some interference issues in L.A. County from a Fresno station.

October 29th, 2003 - 700 MHz Regional Planning Committee Meeting Minutes

Next RPC meeting: Tentatively, the next RPC meeting will be held in February. Also, tentatively, CAPRAD training session will also take place in February - exact date TBD.



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**DA 04-101**  
**January 21, 2004**

**WIRELESS TELECOMMUNICATIONS BUREAU**  
**REGION 6 (NORTHERN CALIFORNIA) PUBLIC SAFETY**  
**PLANNING COMMITTEE ANNOUNCE**  
**REGION 6 (4.9 GHz) PUBLIC SAFETY PLANNING MEETING**  
**AND**  
**REGION 6 (700 MHz) PUBLIC SAFETY PLANNING MEETING**

The Region 6 (Northern California)<sup>1</sup> Safety Regional Planning Committees announces two Regional Planning meetings.

The Region 6 (4.9 GHz) Public Safety Regional Planning Committee meeting will hold its planning meeting at 9:00 a.m. on Thursday, March 11, 2004, in the Ziggurat Building 1<sup>st</sup> Floor Auditorium, Room 1-301, at 707 Third Street, West Sacramento, California. The agenda of the meeting includes:

1. Overview the FCC rules, their implications, and any intervening rule changes pertaining to this important broadband public safety 4.9 GHz allocation,
2. Review status of ongoing efforts performed by the following organizations related to the 4.9 GHz public safety spectrum including:
  - Federal Communications Commission (See <http://wireless.fcc.gov/publicsafety>)
  - National Public Safety Telecommunications Council (See <http://npstc.du.edu>)
  - Other entities, including ad hoc factions,
3. Review 4.9 GHz workgroup progress to date, including:
  - Progress in establishing coordination procedures for fixed and mobile broadband operations giving consideration to concerns and capabilities such as
    - (a) Incident management protocols
    - (b) Interference avoidance
    - (c) Interoperability

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<sup>1</sup> Region 6 (Northern California) is comprised of the 48 counties of California situated north of the northernmost borders of San Luis Obispo, Kern and San Bernardino counties.



- (d) Flexibility aimed at affording dynamic spectrum utilization
4. Review milestones for plan.

The Region 6 (700 MHz) Public Safety Regional Planning Committee meeting will hold its planning meeting following the 4.9 GHz Public Safety Planning Committee meeting and is scheduled to begin at 1:30 pm, on Thursday, March 11, 2004, in the Ziggurat Building 1<sup>st</sup> Floor Auditorium, Room 1-301 at 707 Third Street, West Sacramento, California. The agenda for the meeting is as follows:

1. Review the status of ongoing or culminating efforts performed by the following organizations or quorums in advancing 700 MHz public safety spectrum guidelines and/or rules:
  - Federal Communications Commission
  - National Coordination Committee
  - National Public Safety Telecommunications Council
  - Ad hoc political factions
2. Review, modify, and approve efforts to date of the following workgroups:
  - By Laws
  - Operations and Interoperability
  - Spectrum
3. Review and comment on the status of the responses to the eligible agency requirements definition survey instrument for frequencies in the 700 MHz band re-posted July 2003 on the Region 6 website at <http://www.rgn6rpc.org/>
4. Review, modify and approve workgroup milestones.

Both of the Region 6 Public Safety Planning Committee meetings are open to the public. All eligible public safety providers whose sole purpose or principal purpose is to protect the safety of life, health, or property in Region 6 would utilize these frequencies. It is essential that not only public safety, but all government, Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's Rules be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate and represent your agency's needs.

All interested parties wishing to participate in the planning for the use of new public safety spectrum in the 4.9 GHz band and 700 MHz band are encouraged to attend. For further information about the meetings, please contact:

William De Camp, Chairman  
Region 6, 700 Regional Planning Committee  
Department of General Services,  
Telecommunications Division  
601 Sequoia Pacific Boulevard, MS-WH7  
Sacramento, California 95814-0282  
PH: 916-657-9205

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## **5<sup>th</sup> Meeting**

### **Minutes**

#### **Meeting minutes: Fifth Region 6 700 MHz Public Safety Regional Planning Committee (RPC)**

**Date and Time : March 11, 2004, 1:30 PM**

**Location: 707 Third Street, West Sacramento (Ziggurat Building 1<sup>st</sup> floor auditorium)**

#### **General business**

- *Handouts:* minutes, survey results; map of county respondents to 700 MHz survey (Merced and El Dorado counties didn't respond); summary of available channels.
- *Minutes:* Approved.
- *CAPRAD:* training April 6-7, 2003
- *Recurring interference from Channel 16 in Fresno:* Its receiver has a 160-mile line-of-sight range and is just outside the protection range. The channel is on 24/7.
- *Regional plans:* Only two plans have been submitted to date—Region 5 (Southern California) and Region 24 (Missouri). Region 5's plan was submitted twice and is now out for public comment.
- *Development of national RPC:* Steve Devine of the Region 24 RPC is proposing a national RPC (letter handed out in 4.9 GHz mtg.). Forty of the 55 RPCs want to join. Attendees voted for Region 6 to join also.
- *Bylaws:* On behalf of the bylaws committee, Don Root reviewed the bylaws and requested comments. He noted that the 4.9 GHz group is a subcommittee of the 700 MHz RPC and the bylaws would cover both. Bylaws were approved with minor editorial amendments.
- *Officers:* Randy Hagar was voted as Vice Chair and Tim Graves of the Department of General Services, Telecom Division, as Secretary. No one volunteered for Treasurer. Bill De Camp will continue to perform Treasurer functions.

#### **700 MHz survey results**

Responses were due at the end of February 2004. Roger Melton of the Dept. of General Services (DGS), Telecom Division, compiled the counties' requests for spectrum, and this information was reviewed. Results can be viewed on CAPRAD database (<http://caprad.nlectc.du.edu/login/home>) for 48 counties in the region. Those with authorization can use the CAPRAD database to apply for spectrum. CAPRAD is a central database for all licensing agencies (e.g., ASHTO, IMSA, IFC, APCO) to view and contains bylaws, national 700 MHz public safety pool allotments, etc.

*Frequency allocation:* We reviewed a spread of 700 MHz frequencies in Southern California, which was developed based on Region 5 survey results.

*Allocation workgroup:* Bill would like to establish a workgroup to allocate frequencies. This group will report to the workgroup and to RPC. DGS Telecom will also work on this and other related tasks, with input from the RPC. Kent Eldridge, Pat Haines, Steve Overacker, and Wayne Conley volunteered. The group will meet on April 1 at 1:30 p.m.

*State request for frequencies:* DGS has submitted a survey for these state agencies: CHP, Caltrans, Dept. of Forestry, Corrections, Office of Emergency Services, Parks and Recreation, Fish and Game, Justice, Youth Authority, Water Resources, and Doss's Telecom Division.

*Wideband issues:* Over time, the RPC will determine where users want their frequencies and which users will be able to build a system when frequencies become available. Only 48 wideband channels are available, and requests for these channels in Southern California, for example, have exceeded availability.

*Motorola pilot for Scalable Adaptable Modulation (SAM):* Bill De Camp noted that Motorola is conducting a pilot in Florida to a test for a standard for Scalable Adaptable Modulation (SAM) in a 50 KHz channel. It has been able to achieve three data rates: 36, 64 and 96 KHz/sec respectively. It can achieve 691 Kb/sec in a 150 KHz channel. Motorola will also have a product available that achieves 96 Kb at 25 KHz.

*Survey response from tribes and special districts:* Kent Eldridge asked about the response from tribes or special districts to the survey. Only one tribe (from Region 5) submitted a survey, though 67 tribes in Region 6 received the survey.

*Status on 6.25 KHz channels:* Kent asked about the current status on 6.25 KHz bandwidth channels. Bill responded that MACOM has a 6.25 KHz equivalent efficiency, and Motorola has a 12.5 KHz. The FCC rules for 700 MHz only allow 12.5 KHz until around 2006; however, FCC didn't want to preclude those that want to build systems before 2006. After that, it may allow 6.25 KHz allotments. In the 700 MHz band, a 25 KHz allocation comprises four 6.25 KHz channels, and there is a total of 616 channels. (Refer to footnote on pg. 14)

Because licenses will be granted for 12.5 KHz bandwidth channels, two licenses are needed for 25 KHz or four for 6.25 KHz; however, as mentioned earlier, initially, individual 6.25 KHz channels will not be licensed. The license will indicate that the band is a composite. Planning for the use of the channels is at the county level, not the site level.

*Adjournment.*



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Washington, D.C. 20554

DA 04-1748  
June 18, 2004

**WIRELESS TELECOMMUNICATIONS BUREAU  
REGION 6 (NORTHERN CALIFORNIA) PUBLIC SAFETY  
PLANNING COMMITTEE ANNOUNCE  
REGION 6 (4.9 GHz) PUBLIC SAFETY PLANNING MEETING  
AND  
REGION 6 (700 MHz) PUBLIC SAFETY PLANNING MEETING**

The Region 6 (Northern California)<sup>1</sup> Safety Regional Planning Committees announces two Regional Planning meetings.

The Region 6 (4.9 GHz) Public Safety Regional Planning Committee meeting will hold a planning meeting at 9:30 a.m. on Thursday, July 15, 2004, in the Ziggurat Building 1<sup>st</sup> Floor Auditorium, Room 1-301, at 707 Third Street, West Sacramento, California. The agenda of the meeting includes:

1. Overview the FCC rules, their implications, and any intervening rule changes pertaining to this important broadband public safety 4.9 GHz allocation
2. Review status of ongoing efforts performed by the following organizations related to the 4.9 GHz public safety spectrum including:
  - Federal Communications Commission (see <http://wireless.fcc.gov/publicsafety>)
  - National Public Safety Telecommunications Council (see <http://npstc.du.edu>)
  - Other entities, including ad hoc factions *and other RPCs*
3. Review 4.9 GHz workgroup progress to date culminating in the plan including:
  - 4940 to 4990 GHz survey results for determining each eligible agency's need for public safety frequencies in the 4.9 GHz band (see survey posted at <http://www.rgn6rpc.org/4940main.htm>)
  - Resolution in establishing coordination procedures for fixed and mobile broadband operations giving consideration to concerns and capabilities such as

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<sup>1</sup> Region 6 (Northern California) is comprised of the 48 counties of California situated north of the northernmost borders of San Luis Obispo, Kern and San Bernardino counties.

- Incident management protocols
  - Interference avoidance
  - Interoperability
  - Flexibility aimed at affording dynamic spectrum utilization
4. Approve the plan (for transmission to the FCC by the end of July, 2004)

The Region 6 (700 MHz) Public Safety Regional Planning Committee meeting will hold its planning meeting following the 4.9 GHz Public Safety Planning Committee meeting and is scheduled to begin at 1:30 pm, on Thursday, July 15, 2004, in the Ziggurat Building 1<sup>st</sup> Floor Auditorium, Room 1-301 at 707 Third Street, West Sacramento, California. The agenda for the meeting is as follows:

1. Review the status of ongoing or culminating efforts performed by the following organizations or quorums in advancing 700 MHz public safety spectrum guidelines and/or rules:
  - Federal Communications Commission (see <http://wireless.fcc.gov/publicsafety/700MHz/> for related info)
  - National Coordination Committee (see <http://wireless.fcc.gov/publicsafety/ncc/> for related info)
  - National Public Safety Telecommunications Council (see <http://npstc.du.edu> for related info)
  - Ad hoc political factions
2. Review, modify, and approve efforts to date of the following workgroups:
  - Operations and Interoperability Plan
  - Spectrum Plan
3. Review, modify, and approve workgroup milestones.

Both of the Region 6 Public Safety Planning Committee meetings are open to the public. All eligible public safety providers whose sole purpose or principal purpose is to protect the safety of life, health, or property in Region 6 would utilize these frequencies. It is essential that not only public safety, but all government, Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's Rules be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate and represent your agency's needs.

All interested parties wishing to participate in the planning for the use of new public safety spectrum in the 4.9 GHz band and 700 MHz band are encouraged to attend. For further information about the meetings, please contact:

William De Camp, Chairman  
Region 6, 700 Regional Planning Committee  
Department of General Services,

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Telecommunications Division  
601 Sequoia Pacific Boulevard, MS-WH7  
Sacramento, California 95814-0282  
PH: 916-657-9205  
FX: 916-657-9231  
Email: [william.decamp@dgs.ca.gov](mailto:william.decamp@dgs.ca.gov)

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## **6<sup>th</sup> Meeting** \_\_\_\_\_ **Minutes**

### **REGION 6 - 700 MHz and 4.9 GHz REGIONAL PLANNING COMMITTEE MEETING**

#### **SIXTH MEETING**

#### **ZIGGURAT BUILDING, SACRAMENTO July 15TH, 2004**

##### 4.9 GHz Regional Planning Committee meeting:

- Discussed status of 4.9 GHz plan.
- Letter to FCC requesting extension of deadline to submit 4.9 GHz plan.
- Doug Kerr from LPN Wireless and Mike Doble from Public Safety Communications Resource Center demonstrated radio equipment that was close to being type accepted by the FCC.
- Still accepting responses to the 4.9 GHz survey.
- Still awaiting final decision from FCC concerning the request for reconsideration on the mask for the 4.9 GHz spectrum.
- Reviewed 4.9 GHz spreadsheets showing a graphic representation of the results of the surveys.
- Gregg Rowland from Packet Hop gave presentation on the participation of Packet Hop during an exercise with Golden Gate Safety network.

##### 700 MHz Regional Planning Committee meeting:

- Vote was cast to allow Region 6 - 700 MHz and 4.9 GHz Regional Planning Committee to become signatory to the Spectrum Coalition to influence the rules for the 700 MHz spectrum.
- Distributed minutes of previous meeting.
- Discussed 700 MHz plan and technical details of channel protection, reuse, and frequency separation between transmit and receive frequencies, co-channel and adjacent channel separation and reuse.

Meeting adjourn



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**DA 05-659**  
**March 11, 2005**

**WIRELESS TELECOMMUNICATIONS BUREAU**  
**REGION 6 (NORTHERN CALIFORNIA) PUBLIC SAFETY REGIONAL**  
**PLANNING COMMITTEES ANNOUNCE**  
**REGION 6 4.9 GHz PUBLIC SAFETY PLANNING MEETING**  
**AND**  
**700 MHz PUBLIC SAFETY PLANNING MEETING**

The Region 6 (Northern California)<sup>1</sup> Public Safety Regional Planning Committees announce two Regional Planning meetings.

The Region 6 4.9 GHz Public Safety Regional Planning Committee meeting will hold a planning meeting at 9:30 a.m. on Thursday, April 21, 2005, in Alameda County's OES facilities, at 4985 Broder Boulevard, Dublin, California. The agenda of the meeting includes:

1. Overview the FCC rules, their implications, and any intervening rule changes pertaining to this important broadband public safety 4.9 GHz allocation
2. Review status of ongoing efforts performed by the following organizations related to the 4.9 GHz public safety spectrum including:
  - Federal Communications Commission (see <http://wireless.fcc.gov/publicsafety>)
  - National Public Safety Telecommunications Council (see <http://www.npstc.org/> for related info)
  - Other entities, including ad hoc factions and other RPCs
3. Review 4.9 GHz workgroup progress to date culminating in the plan including:
  - 4940 to 4990 GHz survey results for determining each eligible agency's need for public safety frequencies in the 4.9 GHz band
  - Resolution in establishing coordination procedures for fixed and mobile broadband operations giving consideration to concerns and capabilities such as
    - Incident management protocols

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<sup>1</sup> Region 6 (Northern California) is comprised of the 48 counties of California situated north of the northernmost borders of San Luis Obispo, Kern and San Bernardino counties.



- Interference avoidance
  - Interoperability
  - Flexibility aimed at affording dynamic spectrum utilization
4. Approve the plan (for transmission to the FCC by mid-May, 2005)

The Region 6 700 MHz Public Safety Regional Planning Committee meeting will hold its planning meeting following the 4.9 GHz Public Safety Planning Committee meeting and is scheduled to begin at 1:30 p.m., on Thursday, April 21, 2005, in Alameda County's OES facilities at 4985 Broder Boulevard, Dublin, California. The agenda for the meeting is as follows:

1. Review the status of ongoing or culminating efforts performed by the following organizations or quorums in advancing 700 MHz public safety spectrum guidelines and/or rules:
  - Federal Communications Commission (see <http://hraunfoss.fcc.gov/edocs/public/attachmatch/FCC-05-9A1.pdf> to review the FIFTH MEMORANDUM OPINION AND ORDER, SIXTH REPORT AND ORDER, AND SEVENTH NOTICE OF PROPOSED RULEMAKING released January 7, 2005 for WT Docket No. 96-86 and <http://wireless.fcc.gov/publicsafety/700MHz/> for general 700 MHz-related info)
  - National Law Enforcement and Corrections Technology Center's CAPRAD spectrum management system (see <http://caprad.nlectc.du.edu/cp/index.jsp> for related info)
  - National Public Safety Telecommunications Council (see <http://npstc.du.edu> for related info)
  - Ad hoc political factions
2. Review, modify, and approve efforts to date of the following workgroups:
  - Operations and Interoperability Plan
  - Spectrum Plan
3. Review, modify, and approve workgroup milestones.

Both of the Region 6 Public Safety Planning Committee meetings are open to the public. All eligible public safety providers whose sole purpose or principal purpose is to protect the safety of life, health, or property in Region 6 would utilize these frequencies. It is essential that not only public safety, but all government, Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's Rules be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate and represent your agency's needs.

All interested parties wishing to participate in the planning for the use of new public safety spectrum in the 4.9 GHz band and 700 MHz band are encouraged to attend. For further information about the meetings, please contact:

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William De Camp, Chairman  
 Region 6, 700 Regional Planning Committee  
 Department of General Services,  
 Telecommunications Division  
 601 Sequoia Pacific Boulevard, MS-WH7  
 Sacramento, California 95814-0282  
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 Email: [william.decamp@dgs.ca.gov](mailto:william.decamp@dgs.ca.gov)

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## **7<sup>th</sup> Meeting \_\_\_\_\_ Minutes**

### **REGION 6 (NORTHERN CALIFORNIA) 700 MHz REGIONAL PLANNING COMMITTEE SEVENTH MEETING 4/21/05 @ 1:15 PM**

**Location: Alameda County, California at 4985 Broder Boulevard.**

Meeting called to order at 1325 Hrs

#### Self Introductions start meeting

- Broadcasters mandated to vacate 700 MHz unless a change in “deal.”
- Mechanism to assign frequencies
- Review of progress to date
- CHP has interest to use as soon as possible for mobile (vehicle) repeaters – to replace VHF / High Band
- 25 KHz / 12 KHz to equal 4 channel / 2 channel efficiencies
- 6.25 KHz equivalency farther out....
- 1989 – P25 Start
- 2000 – Standards reorganized

#### 700 MHz wideband data standard

- Data Radio – Rick Leatherman
- Relaxing ACP and Mask
- Reframing date extensions, awaiting final ruling
- Adopting minimum signal strength – accepting levels of acceptable interference
- Adopting standard now premature
- Looking for affordable design – White paper exists – [www.dataradio.com](http://www.dataradio.com)

#### Remaining Tasks in Channel Allocation

- Technical analysis involved
- Heavy vested interest in working group
- State must use channels, or give up
- State has not determined how to assign channels
- High power / low power stations – new licenses until high power vacates
- With low power channel – provide notice
- State going into small communities and telling low power to vacate
- Region 8 – NYC there is a sharing of 700 MHz
- Studies must be conducted
- Commercial providers geared to transportation corridors
- Nationwide network evolving into network of networks
- CAPRAD allocations by Syracuse Research
- Sean O’Hara – Spread of frequencies
- Workgroups for spectrum assignments
- Randy Hagar offered engineer / technical ability needed or to pay for analysis
- Spectrum already requested
- 800 MHz repack along with 700 repack – (look at both as 1 ????)
- Expanding existing systems with 700 MHz
- Not enough channels for Bay Area
- Step up Work Group activity in 700 MHz

#### Motion to approve Prior meeting Minutes

- Approved

Meeting adjourn 1447



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DA 06-1496  
July 21, 2006

## WIRELESS TELECOMMUNICATIONS BUREAU ACTION

### REGION 6 (NORTHERN CALIFORNIA) PUBLIC SAFETY REGIONAL PLANNING COMMITTEE TO HOLD 700 MHz AND 4.9 GHz PUBLIC SAFETY PLANNING MEETING

The Region 6 (Northern California)<sup>1</sup> 700 MHz and 4.9 GHz Public Safety Regional Planning Committee will hold its next meeting on Tuesday, August 22, 2006, from 9:30 a.m. to 2:30 p.m. in the California Department of General Services Ziggurat Building, 707 Third Street, 1<sup>st</sup> floor auditorium (Room 1-301), West Sacramento, California.

The agenda for this meeting includes:

1. Review the status of ongoing and culminating efforts concerning the 700 MHz public safety spectrum guidelines and/or Commission Rules:
  - a. The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communication Requirements through the Year 2010, *Eighth Notice of Proposed Rulemaking*, WT Docket No. 96-86 (rel. Mar. 21, 2006). A copy is available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-06-34A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-34A1.pdf). In addition, general 700 MHz information is available at the Commission's public safety web site <http://wireless.fcc.gov/publicsafety/700MHz/>.
  - b. The Computer Assisted Pre-coordination Resource and Database (CAPRAD) spectrum management system. Related information is available at <http://caprad.nleetc.edu/cp/index.jsp>.
  - c. National Public Safety Telecommunications Council (NPSTC). Related information is available at <http://www.npstc.org>.
  - d. Other entities, including *ad hoc* factions and other regional planning committees.

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<sup>1</sup> The Region 6 (Northern California) area is comprised of forty-eight (48) counties of California situated north of the northernmost borders of San Luis Obispo, Kern and San Bernardino counties.

2. Spectrum Plan - review, modify, and approve efforts to date of the workgroup.
  - a. Review and approve the proposed Region 6 – 700 MHz frequency repacking plan incentives and criteria.
  - b. Discuss how to fund the proposed repacking plan
3. Conduct officer elections.
4. Review the status of ongoing or culminating efforts concerning the utilization of the 4.9 GHz spectrum.
  - a. See The 4.9 GHz Band Transferred from Federal Government Use, *Memorandum Opinion and Order (MO&O)*, WT Docket No. 00-32. A copy is available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-04-265A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-265A1.pdf).
  - b. CAPRAD, NPSTC, and other entities.
5. Review the Region 6 – 4.9 GHz Plan, as submitted to the FCC in May 2005, its implications, and subsequent 4.9 GHz systems implementation in California.
6. Experience two 4.9 GHz-related presentations.
  - a. PacketHop
  - b. Riverside California Broadband Deployment

All Region 6 Public Safety Regional Planning Committee meetings are open to the public. Any eligible public safety service providers whose sole purpose or principal purpose is to protect the safety of life, health, or property in Region 6 may utilize these frequencies. It is essential that not only public safety, but all government (including state and local officials responsible for National Security and Emergency Preparedness within the region), Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Federal Communications Commission's Rules be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process.

All interested parties wishing to participate in the planning for the use of new public safety spectrum in the 700 MHz and 4.9 GHz bands are encouraged to attend. For further information about the meeting, please contact:

William De Camp, Chair  
Region 6 – 700 MHz and 4.9 GHz Regional Planning Committee  
Department of General Services, Telecommunications Division  
601 Sequoia Pacific Boulevard, MS-WH7  
Sacramento, CA 95814-0282  
PH: 916-657-9205  
FX: 916-657-9231  
[william.decamp@dgs.ca.gov](mailto:william.decamp@dgs.ca.gov)

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# 8<sup>th</sup> Meeting

## Minutes

### REGION 6 - 700 MHz and 4.9 GHz REGIONAL PLANNING COMMITTEE MEETING

EIGHTH MEETING, August 22, 2006

#### ZIGGURAT BUILDING, WEST SACRAMENTO

- ⇒ Reviewed 8<sup>th</sup> NPRM.
- ⇒ Mentioned Spectrum article by Dave Buchanan.
- ⇒ Requests for Broadband in 700 MHz mentioned.
- ⇒ 4.9 GHz will do 20-30 miles with right antenna.
- ⇒ Propagation good for broadband in 700 MHz.
- ⇒ Different schemes in article reviewed.
- ⇒ ACCESS spectrum had input.
- ⇒ Region 6 took no position on different methods.
- ⇒ CAPRAD database.
- ⇒ Repacking plan holding things up before plan submission.
- ⇒ ICP.
- ⇒ States tasked for interop plan CALSIED is umbrella for interop plan.
- ⇒ 4 planning areas for interop plan in CALSIEC effort.
- ⇒ CALSIEC and PSRSPC were mentioned.
- ⇒ PRISM evaporated.
- ⇒ Bay area/Capital planning committee central California in process.
- ⇒ Grant funding tied to interop plans.
- ⇒ Work products from PSRSPC cost-benefit analysis 1999 then died.
- ⇒ NPSTC and article by Dave B.
- ⇒ Spectrum plan and allocation.
- ⇒ P25 Phase 2 to 6.25.
- ⇒ 3 submissions.
- ⇒ Must reach back to Phase 1 for interop channels.
- ⇒ Feb 17, 2009 full use.
- ⇒ Reviewed allocation sheet and explained allocation methods based on traffic patterns.
- ⇒ P25 better equipment have tighter specs with adjacent channels and interference protection.
- ⇒ Region 5 used contiguous blocks of channels for more isolation but more expensive equipment required.
- ⇒ Repacking voted in to get more channels to those in need.
- ⇒ Showed broadcast puts showing where 700 available now.
- ⇒ No sense of urgency.
- ⇒ Discussed procurement of repacking services.
- ⇒ Competitive bidding or RFP's.
- ⇒ State took 20% of WASI grant could use for repacking support with Randy Hagar offered help possibly.
- ⇒ Revenue sources.
- ⇒ Participation by State SPC.
- ⇒ Who would be lead procurement agency and the rules that apply.
- ⇒ Discussion about degree of participation from various counties vs. allotments.
- ⇒ Looking for approval to move forward and get vote electronically.
- ⇒ Move to accept allocation table moved and accepted methodology in first step in final allocation decision.
- ⇒ Officer elections.
- ⇒ Chairman opening-Bill is stepping down.
- ⇒ Terry Betz has volunteered.

- ⇒ Decision to delay meeting to choose then vote at next meeting in early November to vote on officers.
- ⇒ Solicit volunteers.
- ⇒ FCC has not ruled on Broadband (wideband) issues in 700 band
- ⇒ Next meeting ?????.
- ⇒ Adjourned 11:20.



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DA 07-1320  
March 15, 2007

## PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ACTION

### REGION 6 (NORTHERN CALIFORNIA) PUBLIC SAFETY REGIONAL PLANNING COMMITTEE TO HOLD 700 MHz REGIONAL PUBLIC SAFETY PLANNING AND 4.9 GHz PUBLIC SAFETY PLANNING MEETING

The Region 6 (Northern California)<sup>1</sup> 700 MHz and 4.9 GHz Public Safety Regional Planning Committee will hold its next meeting on Tuesday, April 10, 2007, from 9:30 a.m. to 12:00 p.m., at the Cordelia Fire Station, Cordelia Fire Hall, 2155 Cordelia Road, Fairfield, California.

The agenda for this meeting includes:

- Review the status of ongoing and culminating efforts concerning the 700 MHz public safety spectrum guidelines and/or Commission Rules:
  - Federal Communications Commission – general 700 MHz information is available at the Commission's public safety website  
<http://www.fcc.gov/pshs/spectrum/700mhz/Welcome.html>
  - The Computer-Assisted Pre-coordination Resource and Database (CAPRAD) spectrum management system – related information is available at  
<http://caprad.nlectc.du.edu/cp/index.jsp>
  - National Public Safety Telecommunications Council (NPSTC) – related information is available at <http://www.npstc.org>

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<sup>1</sup> Region 6 (Northern California) includes forty-eight (48) counties of California situated north of the northernmost borders of San Luis Obispo, Kern, and San Bernardino counties.

- Other entities, including *ad hoc* factions and other regional planning committees
- Spectrum plan – review, modify, and approve efforts to date of the workgroup
  - Review the proposed Region 6 – 700 MHz frequency repacking plan incentives and criteria
  - Solicit support
  - Discuss progress in funding the proposed repacking plan
- Discuss officer positions and elections
- Review 4940 to 4990 MHz public safety deployments

The Region 6 700 MHz and 4.9 GHz Public Safety Regional Planning Committee meeting is open to the public. All eligible public safety providers whose sole or principal purpose is to protect the safety of life, health, or property in Region 6 may utilize these frequencies. It is essential that public safety agencies in all areas of government, including state, municipality, county, and Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's rules, be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate, and represent their agency's needs.

All interested parties wishing to participate in planning for the use of public safety spectrum in the 700 MHz and 4.9 GHz bands within Region 6 should plan to attend. For further information, please contact:

William De Camp, Chair  
 Region 6 700 MHz and 4.9 GHz Public Safety Regional Planning Committee  
 Department of General Services, Telecommunications Division  
 601 Sequoia Pacific Boulevard, MS-WH7  
 Sacramento, California 95814-0282  
 (916) 657-9205  
[william.decamp@dgs.ca.gov](mailto:william.decamp@dgs.ca.gov)

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# 9<sup>th</sup> Meeting

## Minutes

700 MHz / 4.9 GHz Regional Planning Committee (RPC) Meeting  
Cordelia Firehouse  
4/10/07

- Meeting Begins at 0940
- Brief Review by Chairperson Bill DeCamp
- Mentioned 6 MHz Wide band data spectrum segment
- 50 kHz blocks of spectrum
- 384 Kbits/sec
- Proliferation of 802.11 technologies proliferate
- 6 MHz block with 1,2,or 3 channels at 1.24 Mbits width
- Comments to the rulemaking happened
- A scalable modulation 692 Kbits/sec broadband consideration
- Provide spectrum to nonprofit that provides public /private partnerships
- Secondary use of voice channels noninterfering secondary user with 9<sup>th</sup> NPRM
- FCC decision by end of month on auctioned spectrum
- Cyren Call proposal has 30 MHz for broadband leased to private folks
- Going away from Cyren Call
- Frontline has suggestions
- CAPRAD mentioned from public notice
- Syracuse Research distributed spectrum nationwide
- Region 6 plan to complete with repacking possible
- Compiles survey results for needs
- Needs exceeded available spectrum in populated areas
- Region 5 did contiguous channels
- Region 6 not doing contiguous channels due to hybrid combiner loss
- Region 6 plan approach will provide channel separation so can combine
- Reviewed spreadsheet survey results column by column
- Mentioned traffic factors from DOT used
- Need quantitative way to allocate spectrum
- Purpose of meeting is to endorse allocations
- February 17, 2009 is the date for beginning to use 700 spectrum
- Also had December 31, 2006 as date with 85% penetration
- Waivers for early use of spectrum were pursued but broadcasters not amiable to early release
- Current allocation possible technically possible, perhaps??? Not there yet.
- Repacking would challenge
- Reviewed list of goals for RPC discussing performance criteria for repack
- Funding for repacking with input from Randy Hagar from Alameda County
- Total cost unknown
- Allocated with available funding
- Suggested not to agonize over counties that have no need, like Alpine
- Small counties get minimum allotments
- Repack criteria based on allocations on spreadsheet
- 70 channels may not be achievable at repack baseline allocation on sheet
- Plan written
- Bylaws established
- Waiting for repack to submit plan to FCC
- Need funds and criteria to provide to consultant for repack



- Region 6 NPSPAC plan mentioned with repacking
- Digital equipment makes more space with emission mask
- DBu curves as criteria
- Advocate antenna shaping for service area boundaries
- Resolve criteria at next meeting-wish list
- Bill asked for group approval to spreadsheet guide not to be based on physics
- Reserved channels???
- Allocations approved on voice vote by group with no opposition
- Officer positions and elections; need new chair by July 6<sup>th</sup>
- Motion for Bill to be replaced by Randy Hagar was seconded and carried with no opposition
- Meeting adjourned at 1211



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DA 07-3620  
August 15, 2007

## PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ACTION

### REGION 6 (NORTHERN CALIFORNIA) PUBLIC SAFETY REGIONAL PLANNING COMMITTEE TO HOLD 700 MHz REGIONAL PUBLIC SAFETY PLANNING AND 4.9 GHz PUBLIC SAFETY PLANNING MEETING

The Region 6 (Northern California)<sup>1</sup> 700 MHz and 4.9 GHz Public Safety Regional Planning Committee will hold its next meeting on Monday, September 10, 2007, from 9:30 a.m. to 12:00 p.m., at the Cordelia Fire Station, Cordelia Fire Hall, 2155 Cordelia Road, Fairfield, California.

The agenda for this meeting includes:

1. Review the status of ongoing and culminating efforts concerning the 700 MHz public safety spectrum guidelines and/or Commission rules:
  - The Commission's recent 700 MHz Second Report and Order, released on August 10, 2007, is available at [http://www.fcc.gov/Daily\\_Releases/Daily\\_Digest/2007/dd070813.html](http://www.fcc.gov/Daily_Releases/Daily_Digest/2007/dd070813.html)
  - General 700 MHz information is available at the Commission's public safety website <http://www.fcc.gov/pshs/spectrum/700mhz/Welcome.html>
  - The Computer-Assisted Pre-coordination Resource and Database (CAPRAD) spectrum management system – related information is available at <http://caprad.nlectc.du.edu/cp/index.jsp>
  - Other entities, including *ad hoc* factions and other regional planning committees

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<sup>1</sup> Region 6 (Northern California) includes forty-eight (48) counties of California situated north of the northernmost borders of San Luis Obispo, Kern, and San Bernardino counties.

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2. Spectrum plan – review, modify, and approve efforts to date of the workgroup
  - Review the proposed Region 6 – 700 MHz frequency repacking plan incentives and criteria
  - Solicit support for “Repacking Scope of Work”
  - Discuss progress in funding the proposed repacking plan
3. Discuss officer positions and elections
4. Review 4.940 to 4.990 GHz public safety deployments

The Region 6 700 MHz and 4.9 GHz Public Safety Regional Planning Committee meeting is open to the public. All eligible public safety providers whose sole or principal purpose is to protect the safety of life, health, or property in Region 6 may utilize these frequencies. It is essential that public safety agencies in all areas of government, including state, municipality, county, and Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission’s rules, be represented in order to ensure that each agency’s future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate, and represent their agency’s needs.

All interested parties wishing to participate in planning for the use of public safety spectrum in the 700 MHz and 4.9 GHz bands within Region 6 should plan to attend. For further information, please contact:

Randall Hagar, Chair  
Region 6 700 MHz and 4.9 GHz Public Safety Regional Planning Committee  
Deputy Director, General Services Agency  
Alameda County  
1401 Lakeside Drive, 10th Floor  
Oakland, California 94612  
(510) 208-9789  
[Randall.Hagar@acgov.org](mailto:Randall.Hagar@acgov.org)

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# 10<sup>th</sup> Meeting

## Minutes

**Region 6 – 700 MHz RPC**

**Meeting 10**

**Date: 9/10/07**

**Time: 1000 Hrs- 1200 Hrs**

**Location – Cordelia Fire Hall**

## Meeting Minutes

**Meeting starts at 1021 Hrs**

Randy Hagar opens meeting

- Self Introductions
- Formal Meeting – Not focused on specific technical issues
- Repacking Study (Bearing Point) has officially begun
- Should be complete 1<sup>st</sup> quarter 2008
- Will be 2 separate official meetings to vote (On accepting the repacked plan, and the acceptance of the 700 MHz plan itself)
- Mid June Meeting to review and accept repack from Bearing Point

Bill DeCamp

- Second Report and Order in August to re-juggle the spectrum
- Reviewed spectrum issues
- Broadband to replace wideband
- Needing a guard band
- Public Safety Broadband with only 1 Bid (Reserve not met)
- Reviewed Spectrum Layout
- Repacking nationally for preallocations
- Frequency allocations allotted to build systems
- Rules state must build system
- State Licenses will go into general pool if not used
- Frequencies become fair game if not used
- Michelle Geddes from SF suggested that the State plans for spectrum should be communicated

Today's Objective

- Repack by SF SUASI, hired Bearing Point to conduct survey and perform engineering
- Spectrum committee to meet via conference call to formulate SOW
- Goal – To have plan in place by 2/17/09
- Backtrack to July with 6 months to react to issues

Item 3

- Officer Positions / New Positions
- Frequency Advisor / Alternate Frequency Advisor
- Pres Thomson to fill Freq. Advisor / Chris Baker to fill Alternate Frequency Advisor
- Motion and Second – Motion carries
- Secretary-
- Tim Graves nominated (Randy Hagar / Second George Lowry)
- Motion carries

#### Packing Plans

- NPSTC hired Syracuse Research to perform national repack
- Comparing the Bearing Point to CAPRAD studies
  - Bearing Point is more refined study
  - More channels in BP Plan end up in higher population area where needed
  - Frequency coordinators have more latitude
- SOW Introduced
  - SUASI provides \$150K.
  - Flexibility collaboration to work at fine points suggested deliverables defined, but may need to refine.
  - Randy Hager to be point person to make changes to SOW as well as partner in SF SUASI.
  - Conference calls to continue – Bearing Point has provided a conference bridge.
  - Randy organizes a list of people to contact and identify persons that have authority within organizations.
  - Not up to the RPC who votes for each agency represented.
- Project Scope
  - Bob Simmons runs the SOW document
  - How to choose sites
  - Used high sites in first plan
  - 125 km between sites
  - 40 dB contour
  - 5 dB contour
  - Locals identify sites with shaping through antenna use
  - Using low sites more often than high sites
  - Site limitations make for considering high sites with coordination
  - 7 to 16 sites in Alameda so more sites will be identified in populated area
  - Channel spacing and combiner design – more losses with closer spacing
  - 250 kHz plan with 150 kHz subsets
  - 60 dBu good for 12.5 and 25 KHz channels but not 6.25 kHz
  - 12.5 kHz is a minimum
  - Need to determine 12.5 vs. 25 kHz
  - Flexibility vs. Capacity – tradeoff
- Adopt Plan
  - Motion made by Bill DeCamp to adopt plan
  - Second by Steve Overacker
  - Living document
  - Chairman can make minor modifications
- Meeting Adjourns at 1215 Hrs



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**DA 08-240**  
**January 30, 2008**

## **PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ACTION**

### **REGION 6 (NORTHERN CALIFORNIA) PUBLIC SAFETY REGIONAL PLANNING COMMITTEE TO HOLD 700 MHz REGIONAL PUBLIC SAFETY PLANNING AND 4.9 GHz PUBLIC SAFETY PLANNING MEETING**

The Region 6 (Northern California)<sup>1</sup> 700 MHz and 4.9 GHz Public Safety Regional Planning Committee will hold its next meeting on Thursday, February 28, 2008, from 10:00 a.m. to 12:00 p.m., at the Cordelia Fire Hall within the Cordelia Fire Station, 2155 Cordelia Road, Fairfield, California.

The agenda for this meeting includes:

1. Review the status of ongoing and culminating efforts concerning the 700 MHz public safety spectrum guidelines and/or Commission rules:
  - General 700 MHz information is available at the Commission's public safety website <http://www.fcc.gov/pshs/spectrum/700mhz/regional-planning.html>
  - Computer-Assisted Pre-coordination Resource and Database (CAPRAD) spectrum management system – related information is available at <http://caprad.nlectc.du.edu/cp/index.jsp>
  - Other entities, including *ad hoc* factions and other regional planning committees
2. Spectrum plan – review, modify, and approve efforts to date of the workgroup
  - Review the proposed Region 6 – 700 MHz frequency repacking plan criteria and the proposed scope of work

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<sup>1</sup> Region 6 (Northern California) includes forty-eight (48) counties of California situated north of the northernmost borders of San Luis Obispo, Kern, and San Bernardino counties.

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3. Discuss officer positions and elections
4. Review 4.940 to 4.990 GHz public safety deployments

The Region 6 700 MHz and 4.9 GHz Public Safety Regional Planning Committee meeting is open to the public. All eligible public safety providers whose sole or principal purpose is to protect the safety of life, health, or property in Region 6 may utilize these frequencies. It is essential that public safety agencies in all areas of government, including state, municipality, county, and Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's rules, be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate, and represent their agency's needs.

All interested parties wishing to participate in planning for the use of public safety spectrum in the 700 MHz and 4.9 GHz bands within Region 6 should plan to attend. For further information, please contact:

Randall Hagar, Chair  
Region 6 700 MHz and 4.9 GHz Public Safety Regional Planning Committee  
Deputy Director, General Services Agency  
Alameda County  
1401 Lakeside Drive, 10th Floor  
Oakland, California 94612  
(510) 208-9789  
[Randall.Hagar@acgov.org](mailto:Randall.Hagar@acgov.org)

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# **11<sup>th</sup> Meeting**

## **Minutes**

Region 6 - 700 MHz Planning Committee  
Meeting 11 Minutes

**Location: Cordelia Fire House**  
**Date: February 28, 2008**  
**Time: 10:00 AM – 12:00 PM**

Meeting called to order at 10:00 AM by Randy Hagar, Chairperson

Recognition of Bill De Camp for effort and devotion made to the success of Region 6 700 Planning Committee, and Plan Document.

Review of Draft RPC 6 700 Plan Document

- Membership Roster discussion, whether to list all members for past 5 years, or to maintain a current list for the last 12 months. It was decided to include all that have contributed to the plan during the last several years.
- Randy Hagar stated that the abutting regions must “OK” our plan through letters of concurrence before we may submit to the FCC. The goal is to submit our plan by late October / early November.
- Kent Eldridge suggested that the 700 and 800 NPSPAC Committees be eventually merged, primarily the RPC Frequency Coordination Members.
- Allotment vs. Allocation definitions needed.
- Section 5.3 Documentation Requested vs. “other pertinent data”
- Section 5.5 Dispute Resolution – Currently RPC then to the FCC. David Cruise asked about the possibility of going to National RPC prior to FCC. Currently National RPC has no additional authority.
- Section 6.3 – Change Deployable Systems to Interoperable Technology.
- Section 7.0 – Terry Betts requested more information regarding contours with regard to 40 dBμ , 20dBμ and 5 dBμ .
- Section 7.0 – Deleted highest quality receivers.
- Section 8.2 – Steve Overacker brought up potential of analog frequency use occurring in Fire Service.
- Section 8.1 – “Aircraft radios....” changed to, “reflect FCC rules.”
- Section 8.4 – Priority of receiving spectrum allotment – Bearing Point language added on how region was repacked.
- Discussion regarding Golden Gate Bridge Highway and Transit District. Long discussion followed. Randy Hagar, Terry Betts, Kent Eldridge, Steve Overacker and Shelly Nelson all support the 700 Plan as written. No special considerations should be made in this document for any users.
- Request for Bylaws to be inserted into plan document.
- 700 MHz RPC Frequency Advisory Sub Committee – Delete names and language to be added with regard to “out clauses” base on lack of response or meeting attendance.

Next Announced Meeting to be held September 30, 2008 at Cordelia Firehouse. The hope is to adopt the Region 6 700 MHz Plan, so it may be submitted to abutting regions and the FCC.

The Meeting was adjourned.





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DA 08-2054

September 5, 2008

**PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES  
REGION 6 (NORTHERN CALIFORNIA) PUBLIC SAFETY REGIONAL PLANNING  
COMMITTEE TO HOLD 700 MHZ REGIONAL PUBLIC SAFETY PLANNING  
AND 4.9 GHZ PUBLIC SAFETY PLANNING MEETING**

The Region 6 (Northern California)<sup>1</sup> 700 MHz and 4.9 GHz Public Safety Regional Planning Committee (RPC) will hold its next meeting on Tuesday, September 30, 2008, from 9:30 a.m. to 12:00 p.m., at the Cordelia Fire Hall within the Cordelia Fire Station, 2155 Cordelia Road, Fairfield, California.

The agenda for this meeting includes:

- Review, modify, and approve or disapprove the Region 6, 700MHz RPC Plan, including the formation of a Spectrum Advisory Subcommittee, a "Repacked Spectrum Study," and any other relevant excerpts or attachments that the RPC may choose to incorporate into the Plan.
- Discuss and elect officers, particularly a combined Secretary/Treasurer.
- Discuss and review any current FCC notices relevant to either the 700 MHz or the 4.9 GHz bands, particularly the recent notice pertaining to low power transmissions within 700 MHz.
- Review public safety deployments in the 4.9 GHz band.

The Region 6 700 MHz and 4.9 GHz RPC meeting is open to the public. It is essential that public safety agencies in all areas of government, including state, municipality, county, and Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's rules, 47 C.F.R. § 90.523, be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate, and represent their agency's needs.

All interested parties wishing to participate in planning for the use of public safety spectrum in the 700 MHz and 4.9 GHz bands within Region 6 should plan to attend. For further information, please contact:

Randall Hagar, Chair  
Region 6 700 MHz and 4.9 GHz Public Safety Regional Planning Committee

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<sup>1</sup> Region 6 (Northern California) includes forty-eight (48) counties of California situated north of the northernmost borders of San Luis Obispo, Kern, and San Bernardino counties.

Deputy Director, General Services Agency  
Alameda County  
1401 Lakeside Drive, 10th Floor  
Oakland, California 94612  
(510) 208-9789  
[Randall.Hagar@acgov.org](mailto:Randall.Hagar@acgov.org)

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## **12<sup>th</sup> Meeting**

### **Minutes**

Region 6 - 700 MHz Planning Committee (Officially Announced)  
Meeting 12

**Location: Cordelia Fire House**

**Date: September 30, 2008**

**Time: 0930-1200**

Meeting called to order at 9:30 AM by Randy Hagar, Chairperson

#### **Position of Alternate Frequency Advisor**

The first order of business was the discussion to replace Chris Baker as Alternate Frequency Advisor due to his resignation from this position. A motion was made by Preston Thomson, NAPCO and was seconded by Scott Andrews, City of Sacramento nominating Chuck Schuler, Folsom Police Dept. Through unanimous vote Chuck was elected by the RPC to the position of Alternate Frequency Coordinator. Congratulations to Chuck.

#### **Position of Secretary / Treasurer**

The second order of business was the discussion to replace Tim Graves as Secretary / Treasurer, on a permanent basis, due to his resignation. A motion was made by Randy Hagar, Alameda County, and was seconded by Shelly Nelson, Marin County nominating Scott Andrews City of Sacramento. Through unanimous vote Scott was elected by the RPC to the position of Secretary / Treasurer.

#### **RPC 6 700 MHz By-Law Discussions**

Voting – Randy Hagar detailed language to clarify the voting process. Terry Betts had issue with “voting” member regarding Frequency Subcommittee. SF Municipal Transit asked if they as a transit district were eligible to vote. Randy explained, as long as law enforcement is represented, then it’s appropriate.

#### **Plan Review**

Randy Hagar summarized changes made to document since the last workgroup meeting, held on August 19, 2008.

Shelly Nelson had concern regarding language that would allow the movement of channels from within one County boundary to another. She wants clarification regarding this.

Bill Ruck, CSI, referenced the section 7.0 that he recommended be added for rural counties.

Steve Devine, Bearing Point, supports the RPC position with regard to Orphan Channel wording.

SF Municipal asked when applicants could apply for 700 MHz Channels. Randy's thought is a 30 day window starting possibly around November 1. Randy asked the RPC for the approval for the "elected" officials the ability to make "administrative" changes to the 700 MHz Plan Document. Shelly Nelson wanted assurance that meaning of document would not be changed. Bill Ruck made a motion to support Randy Hagar's suggestion and it was seconded by Tim Graves and Terry Betts. Motion passed without any objections. Language will be added that gives officers ability to make "administrative" changes until the Frequency Advisory Subcommittee is formed.

#### Plan Acceptance Motion and Voting

Prior to voting, David Cruise with Golden Gate Bridge and Highway Transit District stated his agency's support of the 700 MHz Plan as written. Terry Betts made a motion to approve plan, and Kent Eldridge seconded.

The plan was accepted with 31 votes for and none against.

#### **Meeting Adjourn**



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DA 08-2767

December 22, 2008

**PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES  
REGION 6 (NORTHERN CALIFORNIA) PUBLIC SAFETY REGIONAL PLANNING  
COMMITTEE TO HOLD 700 MHZ AND 4.9 GHZ REGIONAL PUBLIC SAFETY PLANNING  
MEETING**

The Region 6 (Northern California)<sup>1</sup> 700 MHz and 4.9 GHz Public Safety Regional Planning Committee (RPC) will hold its next meeting on Tuesday, January 6, 2009, from 10:00 a.m., to 12:00 noon, at the Cordelia Fire Hall, Cordelia Fire Station, 2155 Cordelia Road, Fairfield, California.

The agenda for this meeting includes:

- Nominate and elect members to the Frequency Advisory Subcommittee
- Discuss and elect officers, particularly the Alternate Frequency Advisor
- Discuss and review any current FCC notices relevant to either the 700 MHz or 4.9 GHz bands

The Region 6 700 MHz and 4.9 GHz RPC meeting is open to the public. It is essential that public safety agencies in all areas of government, including state, municipality, county, and Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's rules, 47 C.F.R. § 90.523, be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate, and represent their agency's needs.

All interested parties wishing to participate in planning for the use of public safety spectrum in the 700 MHz and 4.9 GHz bands within Region 6 should plan to attend. For further information, please contact:

Randall Hagar, Chair  
Region 6 700 MHz and 4.9 GHz Public Safety Regional Planning Committee  
Deputy Director, General Services Agency, Alameda County  
1401 Lakeside Drive, 10th Floor, Oakland, California 94612  
(510) 208-9789  
[Randall.Hagar@acgov.org](mailto:Randall.Hagar@acgov.org)

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<sup>1</sup> Region 6 (Northern California) includes forty-eight (48) counties of California situated north of the northernmost borders of San Luis Obispo, Kern, and San Bernardino counties.



## REGION 6 – 700 MHz REGIONAL PLANNING COMMITTEE CHAIR ANNOUNCES 13<sup>th</sup> 700 MHz/4.9 GHz RPC MEETING ON January 6, 2009

### 700 MHz and 4.9 GHz RPC Meeting Information

In FCC WT Docket No. 96-86, *First Report and Order and Third Notice of Proposed Rulemaking* (FCC 98-191) titled “*The Development of Operational, Technical and Spectrum Requirements For Meeting Federal, State and Local Public Safety Agency Communications Requirements Through the Year 2010 – Establishment of Rules and Requirements For Priority Access Service*”, the FCC adopted a regional planning approach to spectrum management for specific public safety channels within the 700 MHz band. Region 6 (Northern California) has conducted twelve previous 700 MHz Regional Planning Committee meetings in accordance with the above-referenced docket.

**With this notice, the Region 6 (Northern California) 700 MHz Public Safety Regional Planning Committee Chair announces that the meeting of the Region 6 – 700 MHz/4.9 GHz Regional Planning Committee will be conducted January 6, 2009, from 10:00 a.m. to 12:00 noon at the Cordelia Fire Hall (within the Cordelia Fire Station) located at 2155 Cordelia Road in Fairfield, CA.**

Note: Northern California, Region 6 is composed of the 48 counties of California situated north of the northernmost borders of San Luis Obispo, Kern, and San Bernardino counties.

The agenda for the meeting is as follows:

1. Nominate and elect members to the Frequency Advisory Subcommittee
2. Discuss and elect officers, particularly the Alternate Frequency Advisor.
3. Discuss and review any current FCC notices relevant to either the 700Mhz or the 4.9GHz bands.

All Region 6 (Northern California) 700 MHz/4.9 GHz Public Safety Planning Committee meetings are open to the public. Any eligible public safety service providers whose sole purpose or principal purpose is to protect the safety of life, health, or property in Region 6 may utilize these frequencies (see §90.1203 [and referenced §90.523] both titled “Eligibility” within the Commission’s Rules). It is essential that not only public safety, but all government (including state and local officials responsible for National Security and Emergency Preparedness within the region), Native American Tribal, and non-governmental organizations eligible under §90.523 be represented in order to ensure that each agency’s future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate, and represent your agency’s needs. All interested parties wishing to participate in the planning for the use of new public safety spectrum in the 700 MHz and/or the 4.9 GHz bands are encouraged to attend. For further information about the meeting, please contact:

Respectfully,

Randall Hagar, Chair  
Region 6 – 700 MHz/4.9 GHz Regional Planning Committee

Deputy Director, General Services Agency  
Alameda County  
(510)208-9789  
[Randall.Hagar@acgov.org](mailto:Randall.Hagar@acgov.org)  
1401 Lakeside Dr., 10<sup>th</sup> Fl.  
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**PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES  
REGION 6 (NORTHERN CALIFORNIA) PUBLIC SAFETY REGIONAL PLANNING  
COMMITTEE TO HOLD 700 MHZ AND 4.9 GHZ REGIONAL PUBLIC SAFETY PLANNING  
MEETING**

The Region 6 (Northern California)<sup>7</sup> 700 MHz and 4.9 GHz Public Safety Regional Planning Committee (RPC) will hold its 14th meeting on Tuesday, **June 16, 2009**, from 10:00 a.m., to 12:00 noon, at the Cordelia Fire Hall, Cordelia Fire Station, 2155 Cordelia Road, Fairfield, California.

The agenda for this meeting includes:

- Nominate and elect members to serve a two-year term as Chair and Vice Chair of the 700Mhz Regional Planning Committee
- Discuss and review any current FCC notices relevant to either the 700 MHz or 4.9 GHz bands
- Review and discuss any tentative applications that have been submitted to the RPC Frequency Advisors

The Region 6 700 MHz and 4.9 GHz RPC meeting is open to the public. It is essential that public safety agencies in all areas of government, including state, municipality, county, and Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's rules, 47 C.F.R. § 90.523, be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate, and represent their agency's needs.

All interested parties wishing to participate in planning for the use of public safety spectrum in the 700 MHz and 4.9 GHz bands within Region 6 should plan to attend. For further information, please contact:

Randall Hagar, Chair  
Region 6, 700 MHz and 4.9 GHz Public Safety Regional Planning Committee  
Deputy Director, General Services Agency, Alameda County  
1401 Lakeside Drive, 10th Floor, Oakland, California 94612  
(510) 208-9789  
[Randall.Hagar@acgov.org](mailto:Randall.Hagar@acgov.org)

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**PUBLIC SAFETY REGION SIX 700 MHz/4.9 GHz**  
**REGIONAL PLANNING COMMITTEE**  
**(REGION 6 RPC)**  
**June 16, 2009**  
**MEMORANDUM OF MINUTES**

Location: Cordelia Fire Station, Cordelia, Ca

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The full membership of Region 6 RPC met in regular session at the Cordelia Fire Station in Cordelia, California, on Tuesday, June 16, 2009 at 10:00 a.m. Chairperson Randall Hagar presiding.

**MEETING CALLED TO ORDER**

Chairperson Randall Hagar called the meeting to order at 10:25 a.m. Chairperson Randall Hagar led the group in introductions and thanked all members for attending.

**RECOGNITION & PRESENTATION OF AWARD**

Chairperson Randall Hagar thanked Bill De Camp for all of his work serving the Region and presented him with a card and gift in appreciation.

**GENERAL REPORT ADDRESSING MEMBERSHIP**

Chairperson Randall Hagar gave an explanation of the current Officers positions and described the voting procedure for the positions of Chair and Vice-Chair. There was a brief description of the Public Notice of Application Window and explained that the window will close thirty days after FCC approval of the submitted plan.

**CALL ON APPLICANTS SUBMITTED FOR PRESENTATION**

Steven Devine representing the Golden Gate Bridge, Highway & Transportation District, giving a brief overview of the submitted application.

**PRESENTATION OF CURRENT PLAN AND VOTE TO ACCEPT AND SUBMIT TO FCC**

Chairperson Randall Hagar presented the changes made to the plan by the Spectrum Advisory Sub-Committee. Additional changes were made in front of the full membership with no debate or protests voiced.

The plan with all changes was voted on by the full membership and accepted with no opposition.

**NOMINATION FOR CHAIR AND VICE-CHAIR**

Nominations for Vice-Chair were as follows: Preston Thomson (nominated by Randall Hagar, 2<sup>nd</sup> by David Cruise). No further nominations were received. A unanimous vote was taken and Preston Thomson was elected to a two year term as Vice-Chair commencing on 7/1/09.

Nominations for Chair were as follows: Tom Uldrick (nominated by Michelle Geddes, 2<sup>nd</sup> by Tom Herold), George Lowry (nominated by Randall Hagar, 2<sup>nd</sup> by Scott Andrews). A voice vote was taken by all those members in attendance and the results were as follows: 18 in favor of George Lowry, 7 in favor of Tom Uldrick. A non-qualified proxy vote was presented to the Secretary during the voting procedure. As a result of the full vote, George Lowry was elected to a two year term as Chair commencing on 7/1/09.

**FINAL COMMENTS**

Final comments from Chairperson Randall Hagar

**ADJOURNMENT**

All business having been concluded, the meeting was adjourned at 1:30 p.m.



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## Attachment F

# Letters of Concurrence with Adjoining Regions

## Region 5 – Letter of Concurrence

November 8, 2008

In regards to: Region 6 700 MHz Regional Plan

Randall Hagar  
County of Alameda  
General Services Agency  
Communications Department  
1401 Lakeside Drive, 10th Floor  
Oakland, CA 94612-4305

Dear Randall Hagar,

As Chair of the Region 5 700 MHz Regional Planning Committee, I wish to inform you that Region 5 concurs with your Regional plan dated 9/23/2008.

Please also be advised that Region 5 will shortly be sending you a revised plan including a revised allotment list. It was very helpful to have your plan available while revising the Region 5 allotments, the Committee was able avoid conflicts on our shared border.

Sincerely,



David Buchanan  
Chair Region 5 700 MHz Regional Planning Committee

**Region 27 Letter of Concurrence**

State of Nevada  
700 MHz Committee  
FCC Region 27

November 4, 2008

Region 6  
Northern California Randall Hagar, *Chairperson*  
General Services Agency, Communications Department  
1401 Lakeside Drive, 10th Floor  
Oakland, California 94612-4305

Region 27 concurs with your 700 MHz Plan.

Mark D. Pallans  
Region Chairman  
Sent via e-mail

State of Nevada 700 MHz Region Committee, Mark D. Pallans, Chairman C/O  
Nevada Power Company, 2215 East Lone Mountain Road, M/S 93, North Las  
Vegas, NV 89031 702-402-6246 FAX 702-402-6299 e-mail  
[mpallans@nvenergy.com](mailto:mpallans@nvenergy.com)

**Region 35 Letter of Concurrence**

## **Northern California Region 6 700 MHz Region Plan Concurrence**

**Randy Hagar**  
Chair, Region 6 RPC  
700MHz/4.9GHz

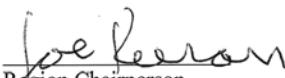
Deputy Director, GSA  
Alameda County  
510.208.9789 (x29789)  
[Randall.Hagar@acgov.org](mailto:Randall.Hagar@acgov.org)

Dear Randy:

This letter serves as official notification and written concurrence that Region 35, Oregon is in receipt of the proposed Northern California 700 MHz Region Plan. Region 35 concurs with the plan.

Please contact me if you require any further assistance.

Thank you,

  
Region Chairperson  
Region 35

Dated: 12-18-2008

**Regional Chair Person Region 35 Oregon**  
Joe Kuran  
Washington County Consolidated Communications Agency  
PO Box 6375  
Beaverton, OR 97007  
PH: 503-466-3782  
FX: 503-531-0186  
Email: [jkuran@wcca.com](mailto:jkuran@wcca.com)

## Attachment G

### **Glossary of Terms**

**Allocation** - To set apart for a particular purpose or eligible FCC licensee; specific channels assigned to a licensee

**Allotment** - A portion or thing allotted; a share granted; general “pool” of channels apportioned to a geographic area such as a county

**APCO** - Association of Public Safety Communications Officials International, Inc.

**BER** - Bit Error Rate

**Bps** - Bits per Second

**CAI** - Common Air Interface

**CalSIEC** - California State Interoperability Executive Committee

**CAPRAD** – Computer Assisted Pre-coordination Resource and Database System

**DAQ** – Delivered Audio Quality

**dB** - Decibel

**dBm** - Decibel (referenced to milliwatts)

**DS1** - Digital Signal 1. Used in telephone and other voice/data networks to carry traffic. (24 voice channels; 1.544 MBPS)

**DS3** - Digital Signal 3 (672 voice channels; 28 DS1; 44.736 MBPS)

**EIA** - Electronics Industry Association

**EIR** – Environmental Impact Report

**EMS** - Emergency Medical Service

**EOC** - Emergency Operations Center

**ERP** - Effective Radiated Power

**FCC** - Federal Communications Commission

**FDMA** - Frequency Division Multiple Access

**GHz** - Giga-Hertz

**k** - Kilo / Thousand

**kbps** - Kilobits Per Second

**KDT** - Keyboard Display Terminal

**kHz** - Kilohertz

**LMR** – Land Mobile Radio

**MBPS** - Mega-bits per Second

**MHz** – Megahertz

**NCC** - National Coordination Committee

**NPSPAC** - National Public Safety Planning Advisory Committee

**PSAP** – Public Safety Answering Point

**Project 25 (P25)** – TIA-102 standard defining public-safety digital radio standards

**RF** - Radio Frequency

**RFP** - Request for Proposals

**RPC** - Regional Planning Committee

**SIEC** - State Interoperability Executive Committee

**SOP** – Standard Operating Procedure

**SOW** – Scope/Statement of Work

**TIA** - Telecommunications Industry Association

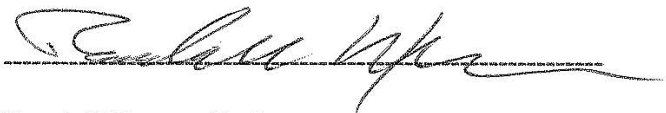
**UHF** – Ultra High Frequency (typically considered 450-512 MHz in public safety radio applications)

**VHF** – Very High Frequency (typically considered 150-174 MHz in public safety radio applications)

ATTACHMENT H

CERTIFICATION OF PUBLIC MEETINGS

I hereby certify that all meetings of the Region 6 Planning Committee (RPC6), 700MHz / 4.9GHz, have been open to the public. All formal (voting) meetings have been publicly noticed and invitations sent to all known interested parties.



date: June 25, 2009

Randall Hagar, Chair  
RPC6, 700MHz / 4.9GHz

Deputy Director, GSA  
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*Inter-Regional Coordination Procedures  
and  
Procedures for Resolution of Disputes  
That May Arise Under FCC Approved Plans*

*I. Coordination Procedures*

**I. INTRODUCTION**

1. This is a mutually agreed upon Inter-Regional Coordination Procedures Agreement (Agreement) by and between the following 700 MHz Regional Planning Committees, Arizona, Region 3, Southern California, Region 5, Northern California, Region 6, and Nevada, Region 27.

**II. INTER-REGIONAL COORDINATION AGREEMENT**

2. The following is the specific procedure for inter-regional coordination which has been agreed upon by Regions 3,5,6, and 27 and will be used by the Regions to coordinate between these adjacent Regional Planning Committees when:

- a. An application filing window is opened or the Region announces that it is prepared to begin accepting applications on a first-come/first-served basis.
- b. Applications by eligible entities are accepted.
- c. An application filing window (if this procedure is being used) is closed after appropriate time interval.
- d. Intra-regional review and coordination takes place, including a technical review resulting in assignment of channels.
- e. After intra-regional review, a copy of those frequency-specific applications requiring adjacent Region approval, including a definition statement of proposed service area, shall then be forwarded to the adjacent Region(s) for review.<sup>1</sup> This information will be sent to the adjacent Regional chairperson(s) using the CAPRAD database.

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<sup>1</sup> If an applicant's proposed service area extends into an adjacent Public Safety Region(s) or a base station is within 70 miles of the adjacent regions border, the application must be approved by the affected Region(s).



f. The adjacent Region reviews the application. If the application is approved, a letter of concurrence shall be sent, via the CAPRAD database, to the initiating Regional chairperson within thirty (30) calendar days.

## *II. Dispute Resolution*

(1) If the adjacent Region(s) cannot approve the request, the adjacent Region shall document the reasons for partial or non-concurrence, and respond within 10 (Ten) calendar days via email. If the applying Region cannot modify the application to satisfy the objections of the adjacent Region then, a working group comprised of representatives of the two Regions shall be convened within thirty (30) calendar days to attempt to resolve the dispute. The working group shall then report its findings within thirty (30) calendar days to the Regional chairpersons email (CAPRAD database). Findings may include, but not be limited to:

- (i) Unconditional concurrence;
- (ii) conditional concurrence contingent upon modification of applicant's technical parameters; or
- (iii) partial or total denial of proposed frequencies due to inability to meet co-channel/adjacent channel interference free protection to existing licensees within the adjacent Region.

(2) If the Inter-Regional Working Group cannot resolve the dispute, then the matter shall be forwarded for evaluation to the National Plan Oversight Committee (NPOC), of the National Public Safety Telecommunications Council. Each Region involved in the dispute shall include a detailed explanation of its position, including engineering studies and any other technical information deemed relevant. The NPOC

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Service area shall normally be defined as the area included within the geographical boundary of the applicant, plus three (3) miles. Other definitions of service area shall be justified with an accompanying *Memorandum of Understanding (MOU)* or other application documentation between agencies, i.e. mutual aid agreements.

will, within thirty (30) calendar days, report its recommendation(s) to the Regional chairpersons via the CAPRAD database. The NPOC's decision may support either of the disputing Regions or it may develop a proposal that it deems mutually advantageous to each disputing Region.

g. Where adjacent Region concurrence has been secured, and the channel assignments would result in no change to the Region's currently Commission approved channel assignment matrix. The initiating Region may then advise the applicant(s) that their application may be forwarded to a frequency coordinator for processing and filing with the Commission.

h. Where adjacent Region concurrence has been secured, and the channel assignments would result in a change to the Region's currently Commission approved channel assignment matrix, then the initiating Region shall file with the Commission a *Petition to Amend* their current Regional plan's frequency matrix, reflecting the new channel assignments, with a copy of the *Petition* sent to the adjacent Regional chairperson(s).


i. Upon Commission issuance of an *Order* adopting the amended channel assignment matrix, the initiating Regional chairperson will send a courtesy copy of the *Order* to the adjacent Regional chairperson(s) and may then advise the applicant(s) that they may forward their applications to the frequency coordinator for processing and filing with the Commission.

### III. CONCLUSION

3. IN AGREEMENT HERETO, Regions 3, 5, 6, and 27 do hereunto set their signatures.

Respectfully,

Curt Knight, Chairperson Region 3

 Date: 3/19/03

David Buchanan, Chairperson Region 5

David Buchanan Date: 5-12-2003

William DeCamp, Chairperson Region 6

Wm DeCamp Date: 5/9/03

James A. Wilson, Chairperson Region 27

JAWilson Date: 7-28-03

*Inter-Regional Coordination Procedures  
And  
Procedures for Resolution of Disputes  
That May Arise Under FCC Approved Plans*

**I. Coordination Procedures**

**I. INTRODUCTION**

1. This is a mutually agreed upon Inter-Regional Coordination Procedures Agreement (Agreement) by and between the following 700 MHz Regional Planning committees, Region 6, (Northern California) , Region 35, (Oregon).

**II. INTER-REGIONAL COORDINATION AGREEMENT**

2. The following is the specific procedure for inter-regional coordination which has been agreed upon by Regions 35, and 6 and will be used by the Regions to coordinate between these adjacent Regional Planning Committees when:

a. An application filing window is opened or the Region announces that it is prepared to begin accepting applications on a first-come/first-served basis.

b. Applications by eligible entities are accepted.

c. An application filing window (if this procedure is being used) is closed after appropriate time interval

d. Intra-regional review and coordination takes place, including a technical review resulting in assignment of channels.

e. After intra-regional review, a copy of those frequency-specific applications requiring adjacent Region approval, including a definition statement of proposed service area, shall then be forwarded to the adjacent Region(s) for review.<sup>1</sup> This information will be sent to the adjacent Regional chairperson(s) using the CAPRAD database.

f. The adjacent Region reviews the application. If the application is approved, a letter of concurrence shall be sent, via the CAPRAD database, to the initiating Regional chairperson within thirty (30) calendar days.

<sup>1</sup> If an applicant's proposed service area extends into an adjacent Public Safety Region(s) or a base station is within 70 miles of the adjacent regions border, the application must be approved by the affected Region(s). Service area shall normally be defined as the area included within the geographical boundary of the applicant, plus three (3) miles. Other definition of service area shall be justified with an accompanying *Memorandum of Understanding (MOU)* or other application documentation between agencies, i.e. mutual aid agreements.